
ECOMPETENCES FOR INTRODUCING CUSTOMER RELATIONSHIPS MANAGEMENT (CRM) IN EDUCATION CENTRES

*Miguel Arjona, Javier Ortiz, Carlos Mendez and Juan Peire (UNED)
Research and Development Department,
Altran SDB
Spain*

Introduction

In this article we will offer a general outline of the main competencies that an education centre has to acquire to adapt, introduce and integrate CRM (Customer Relationships Management) methodologies and techniques in its organisation. The proposals we present are the results of the research work undertaken by Altran SDB in collaboration with the UNED and other European research centres in the Ped-Care¹ and eCompetence projects², both supported by the European Commission.

In our model, we have two significant groups of competencies regarding the organisation's requirements for its administration and management processes and those that have to be acquired by academic and support staff.

1. CRM in Education

CRM should be considered as an enterprise strategy aimed at maximising the degree of satisfaction customers have with the provided service. This strategy can take shape in an internal and external process and in the selection and deployment of a set of support tools.

In recent years, CRM has been successfully adopted in the business environment, mainly in the bank and telecommunication sectors. Moreover, nowadays it is present in practically all business sectors. Recently, it has found a place in education too, becoming an essential tool for those education centres/providers that are working on the Web as virtual or distance universities. Many eLearning tools providers offer, in their systems, specific CRM functionality such as in WebCT or IBM Learning Space, as well as more general solution providers like Oracle, Peoplesoft or Siebel. In most cases, CRM concepts and techniques have been directly translated to education considering it as a business but *without taking care of the specific pedagogical requirements*. In this scenario, it is common to find universities where ensuring individual responsiveness to the students becomes a priority, where universities have their own *Call Centres* or even where all their communication channels are integrated in a *Data Centre* or where advanced data-processing techniques are applied for identifying and classifying groups within the student population.

Together with these global strategies, in which the organisations adopt a CRM model, there are other initiatives that suggest the application of CRM to the learning process itself. Courses are managed by applying CRM methods and techniques that complement and enrich the existing pedagogical methodologies and tools. In this case, the technological transfer is more complex due to the following two reasons. On the one hand, the socio-economic indicators commonly used in CRM have to be replaced by pedagogical ones, avoiding in this way the risk of segregation of students on inappropriate

¹ <http://www.altransdb.com/pedcare.htm>

² <http://www.ecompetence.info/>

economic terms. On the other hand, the selected CRM tools have to be integrated with those used for educational tasks (LMS or Learning Management Systems) that usually present a great complexity.

In these two models, focusing on the organisation and on the learning process, the actors and the required competencies are different. The relevant issues will now be considered in some detail.

2. CRM in an Education Centre/Institution

The application of CRM methods and techniques in an education centre requires wide changes in both the organisation's internal and external processes and even in its strategy. To ensure the success of the change management from the traditional model to a new one directed by CRM, the following conditions have to be fulfilled:

1. The education centre, within its short and mid-term strategy, has to be able to define concrete and measurable objectives that should be expressed by indicators. Improving or maximising students' satisfaction with the education they receive has to always be the final aim. However, it is required to extrapolate this general objective from a set of more concrete indicators that commonly will be controlled through a Balanced Scorecard (BSC). Amongst them, we can highlight fidelity, enrolment, retention or growth. For example, we can consider that our learners are satisfied with the education they are receiving when the number of students that participate in our courses increase year by year, when several students register in more than one course or when the number of withdrawals goes down close to zero. In this scenario it is important to remark on *differences between student satisfaction and the quality of the education*. Whilst these two concepts are often closely related, since good teaching quality can lead to satisfaction, the corollary is not always true.
2. The organisation has to be able to clearly define all its internal and external processes, creating adequate mechanisms for ensuring their correct operation. Process integration is here a key issue, as well as the integration of the information systems that support them. In large education centres it is common that administration and management processes are completely isolated from the learning processes that are controlled by the teaching staff. In this way, the marketing department is in charge of enrolment, the management department deals with registration while several departments and teaching staff define the learning methodology and manage the courses, rarely with strong relationships between these various groups. This situation can cause the loss of important information, limiting management's awareness of the real state of the organisation. For example, it is easy to know how many students have registered in the courses, but it is impossible to foresee how many students will finish them or how they are progressing. In the same way, it is easy to create a student's socio-economic profile but it is difficult to associate it with student performance in the learning process. Also, this lack of process and information integration prevents exploitation of the historic data of the course – probably one of the most important information sources. This gap can be addressed by carrying out a process re-engineering that ensures the information flows between all processes and introducing a system able to offer both management (ERP, etc) and learning functionality (Virtual Campuses, LMSs, etc.).
3. The education centre should be able to offer a unique access point to its students in which all communication channels will be centralised. This Student Services Centre has to completely be integrated with the management and learning processes and has to be able to attend to the different communication channels that new technologies provide. These include those related with the management of the centre and the course (Corporate Portals, secretary, Virtual Campus, eLearning systems, FAQs, etc.), email, telephone and fax, SMS, MMS, mobile devices (especially 3G mobiles -UMTS- and Personal Data Assistants -PDA-) without discarding new media such as the Digital Terrestrial Television (TDT), videoconference or, going further, virtual immersion. Fortunately, the integration of all networks under the IP

protocol will facilitate the creation of these centralised communication channels management systems. Currently, it is just possible to use IP telephony (VoIP) and connect it with the telephone network, SIP protocol, or even to use videoconference systems over IP under the H.323 protocol.

4. The education centre has to be able to gain a deep knowledge about its students using available information, even if it is incomplete or partial. This information will be included in a global *Knowledge Management System* (KMS), essential when we are talking about education. The final aim is to use it for offering students the best individual treatment possible. This is especially important when we consider distance education where direct contact with students is not always possible or, at least, not frequent. To get this knowledge about alumna, it is necessary to capture all information generated in the internal and external processes (administrative data, learning process activity, performance, use of communication channels, etc.) and process it to construct student profiles including behaviour, in the organisation. Again, new technologies from the Artificial Intelligence and data-mining fields, potentially provides such tools.
5. Finally, the education centre, within a general process of change management, has to offer to the teaching and support staff continuing professional development in such tools and their application.

In summary, the ability of educational institutions to fix mid and long term strategy; establish specific objectives whose progress should be monitored using identified and agreed indicators; the definition of internal processes and their integration in a common model; the integration of information systems; the exploitation of all available information; integrated management of communication channels; the ability for creating student profiles, are just some of the key competencies that must be acquired to successfully exploit a CRM model in its organisation.

3. CRM in the Learning Process

As we have said, the CRM methodology and techniques can also be applied to the learning process itself in either an isolated way, or, ideally, under a global CRM strategy. In any case, we can call this new methodology LRM, that is, *Learner Relationships Management*. LRM has to be understood as a complement of current learning methodologies that offers added value. Within the course management process, LRM highlights the creation of the necessary mechanisms for ensuring learner satisfaction and success. The organisational competences are as discussed previously, but for the individual educator a different set should be considered.

First, we have to consider the development of a short-term strategy that aligns with the overall organisation's longer term plans. This short-term strategy will centre around pedagogical objectives and indicators, instead of the socio-economic ones. Inside these indicators, motivation, pro-activity, interactivity (with the teacher, the group and the Learning Management System) and education quality become key factors. To fulfil such objectives, the teacher has to take a new role in the learning process, acting more as a moderator or motivator. These new roles will require new competencies and the use of new tools for controlling the course progress through indicators and for planning corrective actions when significant deviations are detected.

We can highlight the following competencies for applying LRM methodologies to the learning process:

1. The teacher should act as group motivator considering that implicit motivation is a necessary condition, but not sufficient, for facilitating students to reach their pedagogical objectives. Therefore, the teacher has to be aware of motivation techniques and use them appropriately. This is particularly important in the case of distance, non-traditional and mature students,

where the degree of isolation experienced can be high. The facilitation skills of the teacher are also important in group and project work.

2. The teacher has to be able to attend to the different communication channels, providing an adequate individual responsiveness to the needs of each student, where possible. Gaps in this area usually lead to a significant decrease in student motivation. Relevant communications channels include those that are direct (tutoring or face to face sessions, work in group, telephone calls, etc.) and those provided by new technologies (Web, eMail, SMS, MMS, etc.). Here, again, the use of a *communication channel management system* able to centralise all requests from different channels is essential. In this way, the teacher will receive, in the email, all questions students made by any media and will manage them directly through email, sending his answers to students through the selected media. Moreover, the new techniques of natural language processing together with those for semantic analysis will in the short term permit additional support to teachers as specialised intelligent agents may analyse all these requests of information discarding, for example, those that are about administrative questions (redirecting them to secretary/administration) or even automatically answering some of them using historic information stored in a FAQ database.
3. The teacher has to be able to manage *balanced scorecards* that will allow him to follow the progress of the course, analysing the evolution of different pedagogical indicators. Using these techniques does not require a great deal of effort. However, it supposes an important cultural change, especially for educators. As we have said, the application of CRM to the learning process does complement and not replace the current methodologies. That means that the use of those techniques is not going to replace the traditional methods of evaluation of the student progress in the course. However, in some cases the teacher has to deal with very large groups of students that are geographically dispersed, preventing direct contact. In this situation, the teacher's knowledge about the students, their interests or progress in the course is very limited, so the use of these techniques could be the only valid alternative offering.
4. Finally, the teacher should be able to detect significant deviations in the attainment of the pedagogical objectives and to plan corrective actions to resolve the issue. Coming back to the business analogy, we can think of those actions as marketing campaigns in which the teacher offers new services to the students to motivate them or to make them more involved in course activities (for example a new offer of extra-curricular activities).

In summary, the application of CRM techniques to the learning process requires that the teacher adopts a new role in the course, acting more as a motivator and moderator. He/She should also pay special attention to the management of all communication channels. Supporting tools will be required to aid teachers in offering students agile and personalised answers. Again, behaviour modelling techniques will be useful. Another important issue refers to the ability of following the progress of the learning process through the use of balanced scorecards, as well as the ability of detecting deviations and planning corrective actions, essential in distance education courses involving large groups of students during long time periods.

4. Conclusion

Education and especially distance education could obtain important benefits from the application of CRM methods and techniques both from an organisational point of view and considering the learning process itself. However, it also requires actors (institutions, teaching and support staff) to gain a set of new competencies that are not very common in current, traditional educational contexts. We have highlighted the value of administrative and management processes being driven by specified objectives, assessed via a range of socio-economic or pedagogical indicators, of balanced scorecards and the integrated management of communication channels. In this environment, in which the

integration of all processes is essential, the educator has to adapt to a new role as a facilitator, motivator and director.

References:

- ARKES, H., GARSKE, J. (1982). *Psychological Theories of Motivation*. Monterey, CA: Brookes/Cole.
- GENIS, B., RAMÓN CAPILLAS, 2002, *Gestión de la relación con las personas en la web: VRM y CRM*
- HIEMSTRA, 1994, H. B. Long and Associates, *New ideas about self-directed learning*. Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education, University of Oklahoma, 1994 (Roger Hiemstra and Ralph Brockett)
- HIEMSTRA, R., AND SISCO, B. 1990, *Individualizing instruction for adult learners: Making learning personal, powerful, and successful*. San Francisco: Jossey-Bass.
- HURST, M., 2002, *Managing Incoming Email*
- JARVIS, P. 1985, *The sociology of adult and continuing education*. London: Croom Helm.
- KAY, D., 2002, FD Learning Ltd: *eLearning Market Insight Report Drivers, Developments, Decisions*
- KELLER, J., 2000, *How to Integrate Learner Motivation Planning into Lesson Planning: The ARCS Model Approach*, May 2000. NETg <http://www.netg.com/research/kellerwp.htm> February 23, 2001
- KRISTÓF, NYÍRI, 2002, *Towards a Philosophy of M-Learning*. Presented at the IEEE International Workshop on Wireless and Mobile Technologies in Education (WMTE 2002), August 29-30, 2002, Teleborg Campus, Växjö University, Växjö, Sweden
- McLUHAN, M. 1960 "Classroom without Walls", in Marshall McLuhan - Edmund Carpenter, eds., *Explorations in Communication: An Anthology*, Beacon Press, 1960.
- MITCHELL, R., 2002, *Student Segregation and Achievement Tracking in Year-Round Schools*
- OAKES, JEANNIE, ADAM GAMORAN, AND REBA N. PAGE. 1992. "Curriculum Differentiation: Opportunities, Outcomes, and Meanings." In P. W. Jackson (Ed.), *Handbook of Research on Curriculum* (pp. 570-608). New York: Macmillan Publishing Company.
- Ped-Care Project: <http://www.altransdb.com/pedcare.htm>
- Researching Technologies for Tomorrow Learning . Application of CRM strategies to Education. The LRM methodology, lessons from the Ped-Care project. Miguel Arjona, Mar González, Javier Orti. Michael Kelleher, Andrew Haldane and Eelco Kruizinga (editors). ISBN: 90-75709-11-0.
- RIVILLA, I, MIGUEL ARJONA. and others. "PedCare – Project. Personalised Attention to Learners (Pedagogical Distributed Groups Care)". VIRTUAL EDUCA 2003. IV Encuentro Internacional sobre Educación, Capacitación profesional y Tecnologías de la Información. Enfoque Iberoamericano, Perspectiva Global, June 2003, Miami, FL (USA).
- RIVILLA, I, MIGUEL ARJONA. Development and Implementation of a Collaborative Environment for Education. eAdoption and the Knowledge Economy - Issues, Applications, Case Studies. Editores: Cunningham, P. y Cunningham, M. Ed. IOS Press, Amsterdam (Holanda), (2004).