Qualitative and Quantitative Methods in Libraries (QQML) 1:309 –320, 2014

Teaching-learning process in "Project Management in documentation units": a methodological proposal

Rosario Arquero Avilés[1], Gonzalo Marco Cuenca[2] Silvia Cobo Serrano[3] and L. Fernando Ramos Simón[4]

[1]Faculty of Documentation Sciences. Complutense University. carquero@ucm.es
[2]Faculty of Documentation Sciences. Complutense University. gmarco@ucm.es
[3]Faculty of Documentation Sciences. Complutense University. s.cobo@ucm.es
[4]Faculty of Documentation Sciences. Complutense University. ramos@ucm.es

Abstract: Practical and applied training in project management is conceived as a relevant issue in the teaching-learning process in Library and Information Science for students who will be future professionals in our expertise field. In line with this premise, the design of a Community of Practice (CoP) is presented as methodological and pioneering proposal in the course "Project Management in Documentation Units" within the "Master in Documentation, Library and Archive Management" in the Faculty of Documentation Sciences at Complutense University of Madrid (Spain). Results are analyzed as a consequence of the CoP implementation and from the students' point of view, who had an active participation in a real training situation.

Keywords: Project Management in documentation units; teaching methodologies; Community of Practice; professional training; Library and Information Science; Complutense University of Madrid; Spain

1. Introduction

The Faculty of Documentation Sciences at Complutense University of Madrid (Spain), began teaching during academic year 2011/2012, the compulsory subject *"Project Management in Documentation Units"* in all the specialities of the Master in "Documentation, Library and Archive Management", a pioneering subject in the field of Library and Information Science in Spain.

The concept and approach to that Master, in general, and to the subject mentioned in particular, adhere to the principles of what is known as the

Received: 20.9.2013 / Accepted: 26.4.2014 ISSN 2241-1925

European Higher Education Area (EHEA) that was formally adopted as a European political commitment in the so-called Bologna Declaration (European Ministers of Education, 1999). Implementation of the EHEA has brought about structural change, emphasizing a teaching model that concentrates on student learning process, being clearly aimed at acquiring and developing skills, as well as the procedures for their evaluation.

In order to respond to the EHEA challenge in teaching this specific subject, the Vice-Rectorate of Quality Evaluation at Complutense University resorted to the "*Call for Teaching Quality Innovation and Improvement Projects*". The fundamental purpose of that call for proposals is to encourage educational innovation in order to achieve quality university teaching on the fundamental axis of the EHEA, according to which student learning process must be enhanced by innovation.

Granting a project under the framework of that calling is a bid by Complutense University to institutionalize good teaching practices in this process of teaching-learning.

The innovation project approved, whose experience is presented in this communication, has been based on constitution of a *Community of Practice (CoP)* that, as a main asset, provides a knowledge exchange network for the essential purpose of benefiting all its members. The *CoP* is based on the principles and grounds of project management to put forward proposals in project form, adapted to a pilot scenario, the feasibility of which may determine their applicability under real circumstances.

The focus of the innovation project concerned, called *CoP-Innova,* is based on this perspective that are integrated in the line of discourse of our work:

- Explanation of the elements of a standard project in information and documentation units as scope of knowledge.
- Presentation of guidelines for creation, structure and characteristics of the CoP as methodological and teaching proposal.
- Exposure of plan and dynamic of the CoP.

2. Core elements of a standard project in information and documentation units

The subject "*Management of projects in documentation units*", that elaborates on the experience of the *CoP-Innova* project, is based on a model that applies management techniques to projects implemented by information and documentation professionals, linked to the planning of such units. In this context, we may establish a series of features that would comprise the core of basic elements on which the project management is based:

- This includes development of successive, identifiable stages (planning, design, execution, control or monitoring and evaluation) (Winston and Hoffman, 2005).
- The projects are based on specific objectives (Rosacker, 2010) and, along with the phases, require application of certain tools, procedures and specific knowledge (Moore, 1998).
- The timing and qualitative aspect, as well as financial resources, are fundamental and must be present in managing a project. This has been stated by Pat Wagner: "management of projects consists of finishing the work on time, under budget and with the quality foreseen" (Wagner, 2006, p. 24).
- The success of a well-managed project from a technical point of view motivates professionals from the information and documentation units to perform other more complex activities and, moreover, it wakes their interest in group work and project-based work culture within organizations (Winston and Hoffman, 2005).

To sum up, one may establish that project management includes application of a set of techniques, tools, knowledge and skills to fulfil the activities programmed, in order to achieve the objectives of a specific project within a limited time. In that sense, a project is conceived as a process with a defined beginning and end, that leads to generation of a specific product, service, activity or result and that moreover, involves planning of its formulation, implementation and conclusion.

In line with those considerations, a standard project model is presented in information and documentation units comprised of the following elements and principles (Figure 1):

- The object of the project is to obtain a sole result.
- That product, service and/or activity is generated and planned for a receiver.
- Obtaining the result implies assignment of human, economic, material and technical resources. Moreover, development must be implemented within a limited time.
- These products, services and documentation activities must be planned, executed and evaluated; that is, they may be managed by applying the phases of the life cycle of a project: commencement, planning, execution, control and closure.

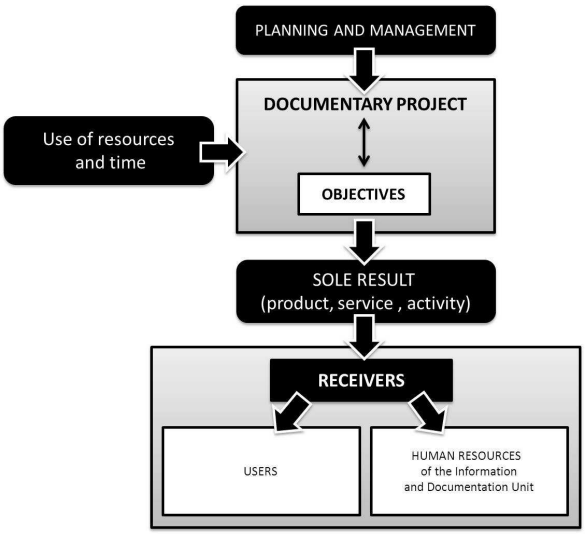

Figure 1. Elements of a standard project in information and documentation units

3. Guidelines for creation, structure and characteristics of the CoP as methodological and teaching proposal

With regard to the directives and elements to conform and develop Communities of Practice, our starting point was the concept of *CoP* formed by Wenger and Lave (1991), according to which learning involves participation in a community and acquisition of knowledge is considered a process of a collective nature. In that sense, the conformation of our *CoP* has been based on the three principles or dimensions set by Wenger (1998):

- Mutual engagement: all members of the *CoP* share their own knowledge and receive that of others (that is, they all have something to teach and all have something to learn).
- Joint Enterprise: the *CoP* must have common objectives, notwithstanding the different members of the *CoP* having different interests and needs.
- Shared repertoire: set of common resources of the *CoP* (terminology, procedures, tools, ways of doing things or concepts

that the *CoP* produces or adopts in the course of its existence and that become part of its practice).

In recent years, *CoPs* have been considered a potential theory for creation of knowledge from a collaborative perspective (Roberts, 2006; Pan and Leidner, 2003). In that line, this project has considered constitution of a *CoP* as a collaboration strategy combining the perspectives of work, learning and innovation (Gongla and Rizzuto, 2001; Palinscar and Herrenkohl, 2002) among the members forming it who are from different sectors of the University. Continuing in that same direction the *CoP*, (as suggested by Lesser and Starck, 2001) is conceived as a means to counter the effect of different hierarchical levels on the organisations and to obtain important benefit for our organisation (specifically for planning and management of the change in its Libraries, on the basis of the pilot experience implemented). In that line, the *CoP* on which development of our innovation project has been based has acted to generate ideas of new products and services (Lesser and Everest, 2001), conceived as projects in its proposal to formulate a real context.

The structure of *CoP-Innova* (Figure 2) has been based on integration of three key elements: the contribution of technical and methodological methods on management of projects in information and documentation units, contribution of ideas transformed into innovation projects and a real context of application of the collaborative experience of the *CoP*. as been materialised in a real experience of integration of the stakeholders who have formed the *CoP*: professors and researchers, librarians and students, as members and direct beneficiaries thereof (Figure 3).

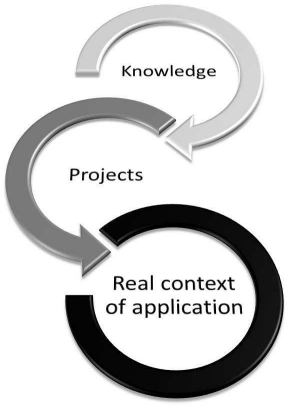

Figure 2. Key elements of the *CoP* structure

The *sector of professors and researchers* was formed by:

- *A Project Manager of the Cop-Innova, who acted as CoP Manager*:

The existence of a *CoP manager* is due to the function of providing and making it possible for the remaining members of the *CoP* to reach agreements over relevant issues or matters (Gongla and Rizzuto, 2001). Moreover, the *CoP Manager* must encourage the interaction by providing for correct interpretation of the different contributions by the rest of the members of the community (Handley et al., 2006; Garavan et al., 2007). The Manager also performs the task of supervision and co-ordination carrying out activities and tasks that are performed by the participants (Brown and Duguid, 1991). Lastly, he or she is the person responsible for the results arising from operation of the *CoP,* including preparation and delivery of the final report. In *Cop-Innova,* that role has been carried out by the incumbent professor of the subject in which the experience has taken place.

- *A Project Team from the sector of professors and researchers,* that has played the role of support and/or advice for the *CoP Manager* in preparing the technical and methodological directives of the work and in management and monitoring the actual *CoP* and the project overall. They are what we could call consultants in the academic and research field, reporting to the *CoP Manager* in order to achieve the objectives established.

The Project Team in this sector was formed by the following members:

- An Associate Professor of Library and Information Science, Faculty of Documentation, Complutense University; Consultant in Library and Information Science and expert in standardisation.
- A Researcher at the Faculty of Documentation, Complutense University.
- A Professor of Library and Information Science, Faculty of Documentation, Complutense University, expert in Information Economics.

The role of contribution to the real context of application of proposals for projects in the professional field has been assigned to the sector of professional librarians on the project team, which was lead by:

- The Director and Sub-Director of University Library of the Faculty of Economics and Business, Complutense University.

The *students' sector of CoP-Innova* was formed by post-graduate students enrolled in the academic course, both on morning as well as afternoon shifts, in

the subject "*Management of projects in documentation units*" of the University Master course in "Management of Documentation, Libraries and Archives" at the Faculty of Documentation Sciences at Complutense University of Madrid. A total 47 students participated, distributed in 17 work teams.

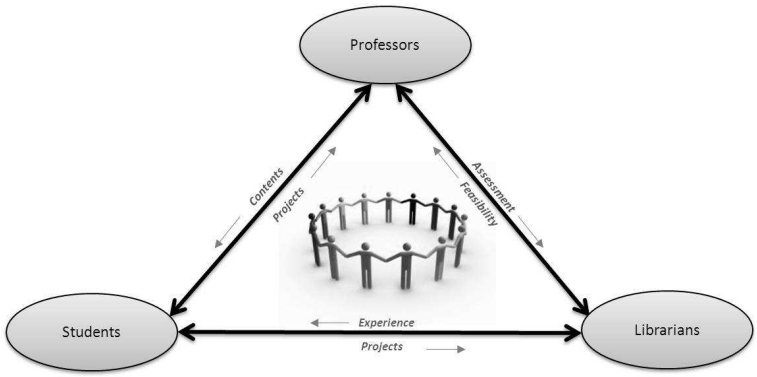

Figure 3. Roles participating in the *CoP*

CoP-Innova has also made use of a series of tools to support communication, social participation and collaborative work, such as: a virtual campus (based on the web application Moodle, that has modules for: administration, tasks, queries, forum, resources, RSS syndication and Atom, e-mail and even a Wiki module) and a private virtual group (on the Facebook network). One must also point out that it has been possible, through the virtual campus, to obtain statistics on participation by all the members, providing the *CoP Manager* information to manage the community, to generate alerts, for member loyalty, activity reactivation, etc. MS Project 2010 was the main specific project management tool used.

4. Plan and dynamic of the CoP

Operation of the *CoP* was based on the model described in Figure 4 and in the following phases and work methodology:

Phase one:

Subphase one: the process of forming *CoP-Innova* was undertaken, defining its structure and identifying the roles of its members and establishment of its objectives (Joint Enterprise).

Subphase two: the bases of the shared repertoire of the *CoP* were established by the *Project Team from the sector of professors and researchers*, based on:

- Setting the operating principles of the *CoP*.
- Explanation of the theoretical and methodological principles for planning and management of projects in information and

documentation units, on the basis of the global objectives of the subject in which the *CoP-Innova* project was developed.

The methodology used in this phase was based on exposing the students to the content derived from analysis and systematization of the content of the contributions analyzed under the heading "Theoretical context" in the adaptation of that conceptual base to the directives proposed in the subject and on their specific application to the real context of the *CoP-Innova* pilot library.

Second phase:

The grounding of the shared repertoire of the *CoP* was completed by contributions by the *Project Team from the sector of library professionals* that, briefly, were based on:

- Explanation of the functions, procedures, services and products produced in the pilot library of the *CoP-Innova* Project.
- Implementing strategies to facilitate collaboration and interaction between the different members of the *CoP* (brainstorming sessions, group discussions, presentations and explanation of previous results …) to channel the initial presentation of proposals of innovative projects in that real context, by the different working groups of students. Those initial proposals were materialized in a first deliverable to be submitted by each work team, according to the scheme shown in Figure 5.
- Drawing up final proposals according to the constitutive elements of the shared repertoire of the *CoP* and definitive materialization of those final proposals by the different work teams in a second deliverable that responded to the scheme we showed in Figure 6.

Third phase

In this phase an analysis of documents was carried out (specifically the reports of projects proposed by the different work teams) and a final directory of these was created. A master catalogue of values (MCV) was also defined. The MCV is a calculation tool that provides statistical data in order to act as an additional complement to the qualitative evaluation performed by the experts. During this stage, an evaluation and discussion of the final project proposals was also carried out in order to determine their feasibility for possible real life implementation. Lastly, the final report on the innovation was drawn up, distributed and its results notified.

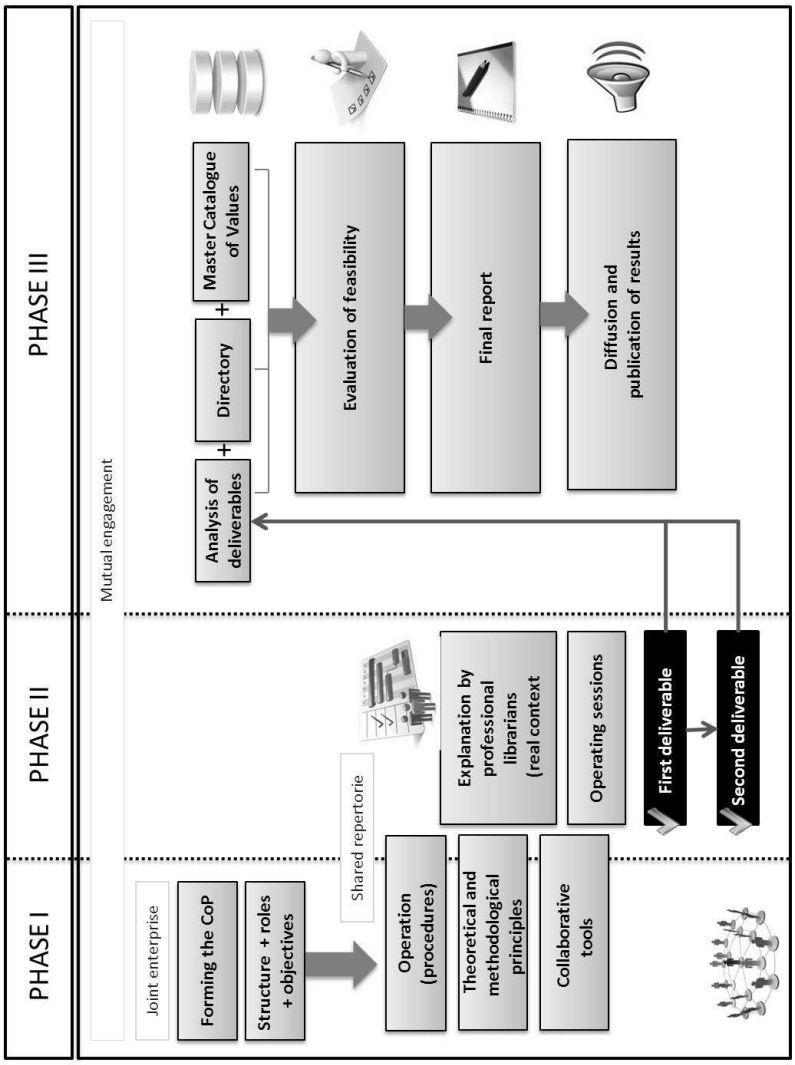

Figure 4. Operating model of *CoP-Innova*

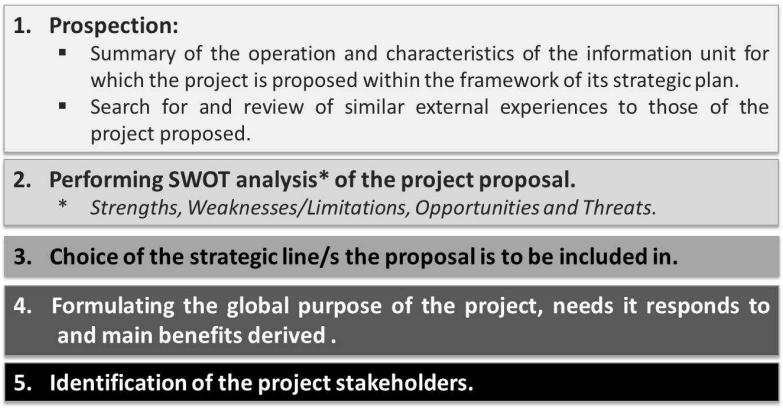

Figure 5. Scheme to draft an initial project proposal in information and documentation units (first deliverable)

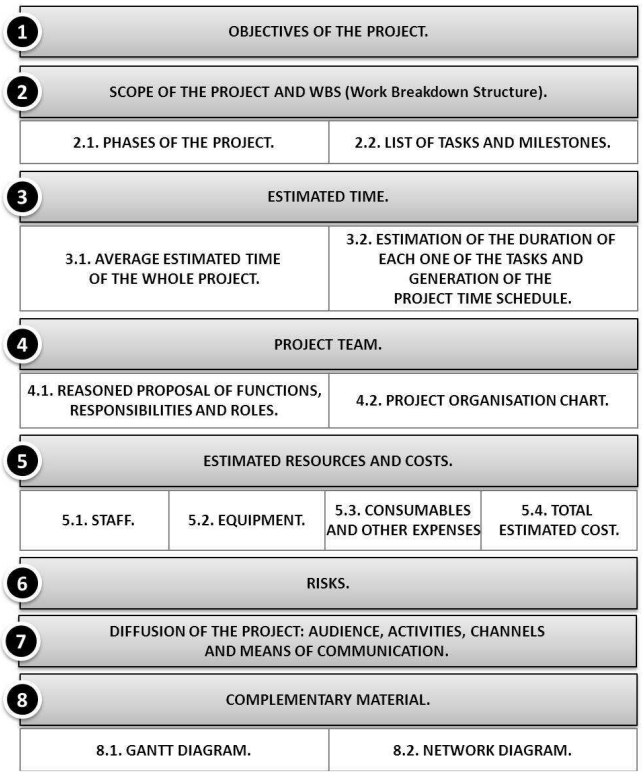

Figure 6. Elements in a model to prepare projects in information and documentation units (second deliverable)

5. Conclusions

A community of practice has been constituted based on development of innovative ideas in planning and managing projects to support improved quality of the University Libraries at Complutense University of Madrid (Spain), based on a case study: the Library of Economics and Business at Complutense University.

In comprehensive terms, *CoP-Innova* was formed by groups of people with a same interest, who have shared needs and experiences, some being educated and trained (students on the University Master Course in "Management of Documentation, Libraries and Archives" at the Faculty of Documentation Sciences) and others, who evaluated their proposals and provided them directives based on professional method and experience (professors of the Faculty of Documentation Sciences and professionals at the pilot library of the Faculty of Economics and Business).

Several clues may be obtained from this experience: it is a dynamic that facilitates motivation and participation; having a pilot scenario allows application of the theoretical bases to a real life context and, thus, better assimilation and comprehension of the content taught; preparing initiatives in the form of projects generates an enterprise climate that is quite close to the demands of present day society and, lastly, the professionals may reuse the proposals in order to improve their centers and with the prior knowledge of their feasibility studies.

CoP-Innova has amounted to a pioneering experience in Spain in education and research in management of university library projects.

An experience has been conducted to immerse students in a real professional pilot scenario, based on knowledge of the theoretical and methodological principles of project planning and management of information and documentation units, founded on the basic principle of a community of practice: *everybody has something to teach and everybody has something to learn.*

References

Atkinson, R. (1999). Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. *International Journal of Project Management*, 17(6): 337-342.

Brown, J. and Duguid, P. (1991). Organizational learning and communities of practice: toward a unified view of working, learning, and innovation. *Organizational Science*, 2(1): 40-57.

Carpenter, J. (2008). *Library project funding: a guide to planning and writing proposals*. Oxford, Chandos.

Carpenter, J. (2011). *Project management in libraries, archives and museums: working with government and other external partners*. Oxford, Chandos.

European Ministers of Education (1999). The European Higher Education Area. Joint declaration of the European Ministers of Education convened in Bologna, 19 June 1999.

Available at: http://www.ugent.be/nl/univgent/reglementen/internationaal/bologna.pdf (accessed 1st March 2013)
Garavan, T.N., Carbery, R. and Murphy, E. (2007). Managing intentionally created communities of practice for knowledge sourcing across organisational boundaries: Insights on the role of the CoP manager. *The Learning Organization: The International Journal of Knowledge and Organizational Learning Management* 14: 34-49.
Gongla, P. and Rizzuto, C. (2001). Evolving communities of practice: IBM Global Services experience. *IBM Systems Journal, 40*(4): 842-862.
Handley, K., Sturdy, A., Fincham, R. and Clark, T. (2006). Withing and beyond communities of practice: making sense of learning through participation, identity and practice. *Journal of Management Studies*, 43(3): 641-53.
Lesser, E. and Everest, K. (2001). Using communities of practice to manage intellectual capital. *Ivey Business Journal* (March-April), 37-41.
Lesser, E. and Starck, J. (2001). Communities of practice and organizational performance. *IBM Systems Journal*, 40(4): 831-41.
Library of the Complutense University (2010) Strategic Plan of the Library at Complutense University 2010-2013. Available at: http://www.ucm.es/BUCM/intranet/doc14417.pdf (accessed 1st March 2013).
Moore, K. (1998). Project management: can libraries benefit? *Bibliotheca Medica Canadiana*, 20(2): 72-73.
Palinscar, A. and Herrenkohl, L. (2002). Designing collaborative learning contexts. *Theory into Practice*, 41(1): 26-32.
Pan, S. and Leidner, D. (2003). Bridging communities of practice with information technology in pursuit of global knowledge sharing. *Journal of Strategic Information System*, 12(1): 71-88.
Roberts, J. (2006). Limits to communities of practice. *Journal of Management Studies,* 43(3): 623-639.
Rosacker, K.M. (2010). Information technology project management within public sector organization. *Journal of Enterprise Information Management*, 23(5): 587-594.
Wagner, P. (2006). The three skills you need to have for successful project management *Information Outlook*, 10(8): 24-26.
Wenger, E. (1998). *Communities of practices: learning, meaning, and identity.* Cambridge, Cambridge University Press.
Wenger, E. and Lave, J. (1991). *Situated learning: legitimate peripheral participation.* Cambridge, Cambridge University Press.
Winston, M.D. and Hoffman, T. (2005). Project management in libraries. *Journal of Library Administration*, 42(1): 51-61.