

# **Sapo Campus Schools: Network Learning, Teaching and People**

Fátima Pais, Carlos Santos, and Luís Pedro

University of Aveiro  
{fpais, lpedro, carlossantos}@ua.pt

Sapo Campus is an integrated web 2.0 service platform designed to be used in Higher Education (Santos & Pedro, 2009). Having implemented it some years ago, the team responsible for developing the platform decided it was time to face a new challenge: to redesign the platform in a way it could be used in other school levels, thus creating Sapo Campus Schools (SCS). In this setting, and despite the fact that some of the demands and problems are the same as those found in Higher Education institutions, the adoption of web 2.0 technologies raises new questions and challenges.

The institutional adoption of SCS, a platform that is defined by its openness and is all about sharing, integration, innovation and personalization, is expected to prompt changes in schools, both in the way people relate to one another and how they teach and learn. More than that, it may also be revealing as to how students can integrate social elements in the learning process.

This is the background for the current research project that aims at: Monitor the schools that take part in the Sapo Campus Schools project and analyse the impact it has on the teaching and learning process, as well as on the way students/teachers relate to this technology.

Bearing this in mind, two research questions were drawn up, one focusing on the impact on three key areas: institution, teachers and students, and the other on the interactions taking place within SCS.

Q1 - What is the impact of the adoption of SCS in the institutional, student and teacher dimensions?

This research question can be broken down into subsidiary issues consistent with the three different, yet complementary, dimensions of analysis. Concerning the impact on the institution, another two questions, looking to identify and assess the impact of the strategies adopted in each school for the appropriation of SCS and to understand how openness is conditioning the/its adoption were also formulated:

Q1.1- What is the impact of the strategies adopted by schools to promote the use of SCS?

Q1.2- To what extent does the institutionalization of a platform characterized by a high degree of openness affect its adoption by the school community?

In the teacher's dimension it is important to understand what dynamics involving teachers are supported by dynamic SCS, as well as possible changes in patterns of

consumption/ production of information. Believing that these dynamics can become the starting point of a learning network, also based in SCS, it is important to understand the interactions that arise within this habitat and how they enhance the ownership of the platform.

Q1.3-What role can learning networks/the learning network play in the process of SCS's appropriation by teachers?

Q1.4-What changes can be identified in the practices of the teachers involved as well as in online dynamics and patterns of consumption and production of information?

The third dimension of analysis includes students, the core of this research. At first it is necessary to assess how and in what context students use the platform to build its/their digital presence. It is expected and even desirable that this process has a social component, and it is also intended to relate this digital presence with the learning process *sensus lacto*.

Q1.5-What elements characterize the presence of students in SCS?

Q1.6-How does the digital presence of students enhance the learning process (formal and informal)?

The second question concerns a holistic approach, going into the different groups of agents that are typically found in a school. Drawing from both an institutional and humanist perspective, these questions refer to the organization of the school keeping in mind the groups of people who share certain roles.

The three dimensions of analysis mentioned above (institution, teachers and students) are joined by intermediate structures, as well as by other groups of agents: parents and other school staff. We aim at studying the types of interactions within each of these groups and how those agents interact.

Q2-What kind of interactions enhancing communication and the sharing of resources are established within and between different groups of stakeholders?

The on-going literary review directly includes subjects related to Personal Learning Environments (PLE) (Attwell, 2007; Downes, 2010; Hongyu et al., 2010; Kompen et al., 2009; Qian, 2010), web 2.0 (Anderson, 2007; O'Reilly, 2007; O'Reilly, 2005; Richardson, 2006), learning networks and all the related conceptual body. Also important, stemming from the impact studies, are the issues concerning innovation processes and knowledge management (Christensen et al., 2010; Drucker, 2002; Nonaka & Takeuchi, 1991; Nonaka & Von Krogh, 2009). Cooper (1985), Cronin et al. (2008) and Randolph (2009) express the need to set a time frame to delimit research as well as the importance of consulting references databases. As a consequence, when conducting a literature review, with the exception of major authors, it is reasonable to consider a five-year publishing period. However, in an emerging field such as PLEs, database references are somewhat scarce. For that

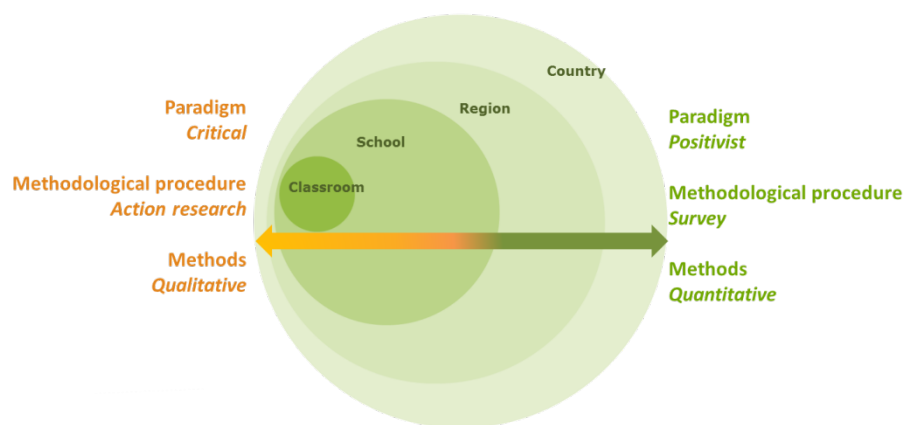
reason other reference authors, from other sources available in the internet latent corpus will also be considered/ were also considered.

Two groups of schools, chosen for specific and distinctive reasons, will take part in the study. In the first group (G1), which is made up by two schools with different surroundings (urban and rural setting), the research will be more interventional. As for the second group (G2), schools are yet to be chosen and will be selected from those that decide to join SCS.

Methodologically, this research stands on extremes, assuming both a positivist and a critical paradigm.

This approach, that sets out to combine two apparently opposing issues: depth and width, intersects two different methodological procedures: action research and survey. Regarding G1, action research will make it possible to understand the process more broadly, ranging from the administration and management levels to the classrooms. In G2 the focus will be on the adoption contexts, understanding the processes behind them, relating them amongst themselves and to the situation in G1, using the same research techniques and tools. Because it involves more schools, in this group research will be more longitudinal through the application of a longitudinal survey. Methodologically, it is important to point out that the data collect in both settings will be crossed taking into account the role and presence of the researchers, different in each group. As for the nature of the study it will be mixed, combining qualitative and quantitative methods. The techniques and data collection tools are also varied and were chosen keeping in mind the research questions: surveys (questionnaires and interviews), documental analysis (SCS's access data e literature review), as well as the researcher's diary.

The diagram below (figure 1) seeks to explain the relationship between the paradigms, methodological procedures and methods presented:



**Fig. 1.** Relationship between the paradigms, methodological procedures and methods presented

Insofar, the data collected makes it possible to draw a first profile of SCS's users, noting that these are all preliminary results based on the experimental use of the platform. Impact wise it is expected that this project will add on to the skills related to digital and information literacy, key 21st century skills. On the other hand, the project is in line with what Attwell (2007) entitles new content ecology, being that all SCS

users are potential prosumers. From a product development's standpoint, this project can provide information that reflects the schools' opinions and helps redesign the platform, creating constructive synergies between users and developers.

In this project issues related to digital citizenship and education for media are transversely and distinctly present. The use of SCS, which is intended to be responsible and encompasses social and shared dimensions, can become a catalyst for the necessary changes summarized by Figueiredo (2010) when he states that all of us must learn to live, cooperate, collaborate, lead, create, self-organize and co-organize self- and co-organize) in this world. Therefore it is necessary that citizens recognize that it is time to take the construction of knowledge that will ensure their independence and success into their own hands. That is the power and the freedom underlying the true concepts of web 2.0.

### Acknowledgements

Research done in partnership with the PTDC/CPE-CED/114130/2009 project, funded by FEDER funds through the Operational Programme for Competitiveness Factors - COMPETE and National Funds through FCT - Foundation for Science and Technology (Portugal).

### References

1. Anderson, P.: What is Web 2.0?: ideas, technologies and implications for education: JISC Technology and Standards Watch (2007)
2. Attwell, G.: Personal Learning Environments-the future of eLearning? eLearning papers, 2(1), 1-7 (2007)
3. Christensen, C. M., Horn, M. B., Johnson, C. W.: Disrupting class: How disruptive innovation will change the way the world learns: McGraw-Hill Professional (2010)
4. Cooper, H. M.: A Taxonomy of Literature Reviews (1985)
5. Cronin, P., Ryan, F., Coughlan, M.: Undertaking a literature review: a step-by-step approach. British Journal of Nursing, 17(1), 38-43 (2008)
6. Downes, S.: New technology supporting informal learning. Journal of Emerging Technologies in Web Intelligence, 2(1), 27-33 (2010)
7. Drucker, P. F.: The discipline of innovation. Harvard Business Review, 80, 95-104 (2002)
8. Figueiredo, A.: A Geração 2.0 e os Novos Saberes. Paper presented at the Jornadas "Cá Fora Também se Aprende", Lisboa.  
[http://coimbra.academia.edu/adf/Papers/174349/A\\_Geracao\\_2.0\\_e\\_os\\_Novos\\_Saberes](http://coimbra.academia.edu/adf/Papers/174349/A_Geracao_2.0_e_os_Novos_Saberes) (2010)
9. Hongyu, Z., Liyou, Y., Yongqiang, W.: The personal learning environment (PLE) based on web2.0. Paper presented at the Web Society (SWS), 2010 IEEE 2nd Symposium on (2010)
10. Kompen, R., Edirisingha, P., Monguet, J.: Using Web 2.0 applications as supporting tools for personal learning environments. Best Practices for the Knowledge Society. Knowledge, Learning, Development and Technology for All, 33-40 (2009)
11. Nonaka, I., Takehuchi, H.: The Knowledge-Creating Company. Harvard Business Review (1991)
12. Nonaka, I., Von Krogh, G.: Tacit knowledge and knowledge conversion: controversy and advancement in organizational knowledge creation theory. Organization Science, 20(3), 635-652 (2009)
13. O'Reilly, T.: What is Web 2.0: Design patterns and business models for the next generation of software. Communications and Strategies, 65, 17 (2007)
14. O'Reilly, T.: What is web 2.0. Design patterns and business models for the next generation of software, 30, 2005 (2005)

15. Qian, G.: The Web as PLE: Perspective from educational technology and Internet psychology (2010)
16. Randolph, J.: A Guide to Writing the Dissertation Literature Review. *Practical Assessment, Research & Evaluation*, 14, 13 (2009)
17. Richardson, W.: *Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms*. London: Sage Publications Company (2006)
18. Santos, C., Pedro, L.: SAPO Campus: a social media platform for Higher Education. *Research, Reflections and Innovations in Integrating ICT in Education*, 2, 1104-1108 (2009)