

HOW A PERSONAL LEARNING ENVIRONMENT CAN HELP PRIMARY ENGLISH TEACHERS TO INCREASE THEIR KNOWLEDGE

Final Degree Project

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Abstract

A Personal Learning Environment (PLE) is defined as a set of tools, information resources, web connections and activities in which learners are allowed to create, to share ideas, to join groups and to publish content that will be available to the other users, who will use this material to increase their knowledge. In this collaborative learning, individuals are able to set their own learning objectives and to self-evaluate their learning process.

This research project analyses how a Personal Learning Environment can help Primary English teachers to increase their knowledge. In particular, the study focuses on their participation in a PLE to fulfil their learning aims, to apply the acquired knowledge in their English lessons and to obtain positive results in their learning process.

Key words: Personal Learning Environment (PLE), collaborative learning, lifelong learning, self-assessment, digital resources.

Resum

El terme Entorn Personal d'Aprenentatge (PLE) es refereix a un conjunt d'eines digitals, fonts d'informació i pàgines web on els aprenents poden interactuar lliurement creant o compartint idees, formar part de diversos grups i publicar contingut que poden utilitzar els altres aprenents per augmentar el seu coneixement en determinats àmbits. A més, aquest aprenentatge col·laboratiu els permet determinar els seus propis objectius així com avaluar el seu ritme d'aprenentatge.

Aquest treball pretén analitzar com un Entorn Personal d'Aprenentatge pot ajudar els mestres d'anglès de Primària a augmentar els seus coneixements sobre determinats aspectes de la seva tasca docent. En concret, es centra en les seves intervencions en un PLE per tal de complir els seus objectius, ser capaços d'aplicar a les aules el coneixement adquirit i obtenir bons resultats en el seu procés d'aprenentatge.

Paraules clau: Entorn Personal d'Aprenentatge (PLE), aprenentatge col·laboratiu, aprenentatge al llarg de la vida, autoavaluació, recursos digitals.

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1. Introduction

Since I started studying at the University, I was interested in the use of digital tools and resources to encourage pupils in improving their knowledge acquisition in an interactive and collaborative way. During this period, I discovered many different web sites with a lot of interesting and useful materials but I wanted to create a digital base in which to classify all these resources in sections or topics. Thus, I thought that if teachers create their (digital) website in which to classify their experiences and resources, there would be a lot of useful resources available to other teachers with similar interests and learning aims. Thus, I thought that it could be a good idea to create an easy-to-use website in which a community of English teachers could share and publish content, ideas, experiences and opinions and receive feedback from the other users of the community. This is why I started being familiar with the concept Personal Learning Environments (PLE).

The main goals of this document called “How a Personal Learning Environment can help Primary English teachers to increase their knowledge” are: “To learn new content, tools and digital resources thanks to the participation in the blog of other English teachers”; “To be able to apply the acquired knowledge in their English lessons” and “To obtain positive results in their own learning process through the use of the materials or ideas acquired in the Personal Learning Environment”.

Besides, in order to carry out the research I sent an initial questionnaire to six English teachers of Primary Education so as to gather some personal information and their level of technology acquisition. Then I created a private Personal Learning Environment called “My English PLE” in which every teacher with a user profile could share materials and digital resources classified in five sections: “Activities in the English class”; “Digital resources”; “Books and articles”; “Teaching courses”; and “Forum”. Finally, I sent a final questionnaire to the English teachers who answered the initial questionnaire and participated in the blog in order to verify if the main goals of the research project have been completed.

To conclude, this Final Degree Project is structured in a number of sections. The first one is a theoretical framework which includes a definition of Personal Learning Environments, their characteristics and components, their types, the pedagogical foundations of this learning methodology and some examples of PLEs. After that,

there is a section about the research methodology applied in this study, which is constituted by questionnaires, a case study and participative observation of the blog development. In addition, I include a section to analyse the design and findings of the practical implementation which contains the initial and final questionnaires and the design of the blog called “My English Personal Learning Environment”.

The last section is devoted to the conclusions of the whole research process from the beginning of the research until the end of the blog analysis. The latter consists on all the interventions and materials posted by the English Primary teachers who both users of the digital learning community and participants in this research project.

2. Theoretical Framework

2.1 Definition of a Personal Learning Environment (PLE)

The idea of a Personal Learning Environment is based on the notion that learning is continuous and so, it intends to provide tools to support this continuous learning. Moreover, it also recognizes that learners have the opportunity to organize their learning process and to set their own learning aims taking into account their interests and priorities.

Besides, it is social software that offers the opportunity to join the divide between producers and consumers. Thus, consumers become producers through creating and sharing, and learners become simultaneously producers and consumers of learning materials.

The principles of a PLE are the ability to create, to share ideas, to join groups and to publish content that will be available to the other users, who will use this material to increase their knowledge.

Another key factor of PLEs is that learning takes place in different contexts and situations, and materials will not be supplied by a single learning provider. A lot of individuals will take part in this collaborative learning by adding information and giving their opinion about different topics, experiences and ideas.

We have to take into account that individuals learn throughout their lives in all kinds of different contexts, so most of this learning does not come from formal educational programmes, but from ideas that emerge from various learning experiences provided by many different situations.

Furthermore, this social software has already led to the widespread adoption of e-portfolios for learners, bringing together learning from different contexts and sources of learning. It is also being used in education through applications such as blogs, wikis, apps for creating and sharing multimedia and tools for sharing all kinds of different personal knowledge bases including book collections, videos, web links or printable documents.

In conclusion, a Personal Learning Environment is a set of tools, information resources, web connections and activities that each person uses to manage his/her own learning. It mainstreams all the experiences that formed his/her learning based

on formal education and also the new ones based on new information technologies. Finally, as Attwell (2007: 7) determines “PLEs provide learners with their own spaces under their own control to develop and share their ideas”.

2.2 Characteristics of a PLE

First of all, a Personal Learning Environment allows the students to set their own learning objectives and provides them with the management of the content and also of their learning process. Moreover a PLE enables communication between students for sharing, comparing and mixing information, a key factor in this way of learning.

A PLE combines all the formal and informal learning of the participants in a unique experience. It also uses social networks which can connect people from different places around the world. The Network Protocols are also important (peer-to-peer, web services...) to connect a number of resources and systems in a personally managed restricted space.

Besides, this restricted space is the perfect environment to efficiently use technology. Nowadays, with the use of Internet and the social networks, everyone can be a creator and a supplier of new information in order to enrich the Personal Learning Environment. Therefore, it is a good strategy to learn how to use technology in an efficient way.

However this, it is important to highlight that this way of learning needs a formed apprentice, someone who could fix his/her learning objectives, because this learning process does not entail any type of evaluation whatsoever. This is why the apprentice must learn with another kind of motivation and be able to evaluate his/her own learning process.

Moreover, an essential part of a PLE is the personal network in which the students exchange information in different ways and with several digital tools.

Finally, the way to understand learning that a Personal Learning Environment proposes involves the digital communication between all the apprentices and also involves the fact that each apprentice agrees to participate actively and to contribute with new information and content. In this type of learning it is not allowed to be only a consumer of resources that other people post: all the users must contribute to

increase the others' learning with materials, resources, experiences or ideas. As Adell and Castañeda (2013: 86) determine, “[u]n PLE se desarrolla a lo largo del tiempo”, so learners can add new information throughout their life in order to help the others increase their knowledge.

2.3 Pedagogical foundations

The theoretical basis of a Personal Learning Environment depends on the context in which the users want to implement it, because a learning theory specifically tailored for PLEs doesn't exist. That's why there isn't a unique theory for learning technology.

As Castañeda and Adell (2013: 29) suggest, there are a number of theories to learn with emerging technologies. We will address them briefly in the following sections.

2.3.1 Lifelong Learning

The idea of lifelong learning was originally rooted in the workers movement. In the UK, the Mechanics Institutes, the Miners Halls and organizations like the Workers Educational Association organized classes and courses for workers to improve their own education, and also provided them with access to learning resources and social activities.

Nowadays, the increasing speed of adoption and implementation of new technologies in the workplace and the increasing instability of employment is the reason why workers need continuous learning throughout their work-life to update their occupational skills and knowledge or to learn new occupational competences. As Laal and Salamati (2012: 402) state, “[o]ur world is changing around us in such a frantic pace that if we do not continue to grow and develop; we will soon be left behind”.

In this point of view, learning is seen as individuals spending occasional periods of formal education and training throughout their working life. This factor helps learners to discover and apply new abilities and ideas with confidence and creativity in order to improve their working experience.

2.3.2 Self determined learning

This theory is based on the principle in which people are capable of searching for new ways to solve their problems and also to reconsider their beliefs and values so as to assess the previously established learning objectives and if they are fulfilled or not.

Blaschke (2012: 59) determines that “[i]n self-determined learning, it is important that learners acquire both competencies and capabilities”. On the one hand, when learners are competent, they demonstrate the acquisition of knowledge and skills; on the other, when they are capable, skills and knowledge can be reproduced in unfamiliar situations. Besides this, capable people have some characteristics:

- They know how to improve their knowledge and assess their own learning process.
- They have communication and teamwork skills because sharing ideas and experiences is a key factor in their learning.
- They are creative and they know how to adapt their knowledge and their capacities to new situations and contexts.

2.3.3 Rhizomatic learning

This learning theory requires the creation of a digital context in which to build the bases to construct the knowledge thanks to the contribution of all the apprentices that will participate in the Personal Learning Environment. This initial knowledge can be modified and reconstructed throughout the learning process. In addition, this model empowers a digital community to create a flexible model of learning which is developed at the same time when the priorities and learning aims change and the users create another type of information.

The role of the instructor in this kind of e-learning is to provide an introduction in which students may participate adding new content, digital resources, ideas or experiences which can contribute to increase the knowledge of the other participants. As Cormier (2008:6) observes, “[i]f a given information is recognized as useful to the community or proves itself able to do something, it can be counted as knowledge”.

2.3.4 Self-regulated learning

According to this theory, all the apprentices that contribute in a Personal Learning Environment must present some characteristics. They have to be able to: set their own learning objectives; plan their learning process; obtain intrinsic motivation based on the desire to learn and increase their knowledge; be able to apply different learning strategies depending on the context; self-assess their ability to acquire knowledge; and reflect on their own learning.

As Effeney (2013: 59) determines, “[s]ocial interactions with peers can lead to the sharing of learning strategies.” Thus, the apprentices can learn how to set their own learning goals and self-assess their learning process based on their priorities and motivations.

Finally, the learners will be equipped with these self-regulatory skills which will allow them to systematically adapt their learning strategies to changing personal and contextual situations.

2.3.5 Connectivism

This is the learning theory with more importance in the basis of the digital education and the use of communication and information technologies in the learning process. Siemens (2005: 2) defines learning as “a persisting change in human performance which comes as a result of the learner’s experience and interaction with the world”. This interaction is a key factor to understand this theory focused on connecting specialized information and experiences from different people who continually acquire new information. These learners have the ability to distinguish between important and unimportant information. Besides, they can recognize when new information alters their learning goals and priorities. The main principles of this theory are:

- Learning depends on the diversity of opinions, ideas and experiences.
- Learning is the process of interconnecting different information sources and digital tools that can be implemented in a variety of situations and contexts.

- The learning process can take place in a digital environment using a digital base to construct the new knowledge, organized and edited depending on the learning aims of the participants and their interests.
- The apprentices must create and share materials in order to increase the knowledge of all the community. At the same time, they have to check others' materials and self-assess their learning process.
- A key learning factor is the ability to interconnect topics, ideas and concepts taking in account the apprentices needs in order to increase their knowledge.

2.3.6 Peer learning

In our daily life we continually learn from each other, we find enough information and guidance from friends and colleagues. The advantage in this kind of informal learning is that they have been in one stage of their learning process, in a similar position to us, the same learning aims or the same interests.

As Boud (2001: 2) suggests, this theory is based on “learning with and from each other”. Moreover, this theory is a two-way, reciprocal learning process. It should be mutually beneficial and involve the sharing of knowledge, ideas and experience between the participants. Thus, students learn by explaining their ideas to others and by participating in activities in which they can learn from their peers. Furthermore, they develop skills in organizing and planning learning activities, working collaboratively with others, giving and receiving feedback and evaluating their own learning.

In addition, one of the potential benefits of peer learning is that all students can benefit from it, not only those who are socially adapted or best networked. What's more, it gives to the learner more experience than traditional learning methods in taking the responsibility for their own learning process and in their self-assessment.

Finally, to accomplish the goals in this kind of informal learning, the “peers” must be other people in a similar situation. Besides, they must not have the role as a teacher or an expert practitioner, although they must hold enough experience to teach new content and ideas to the other person.

2.3.7 Complexity theory

As Morrison (2006: 1) states, it is a “learning theory of change, evolution and adaptation”. Thus, an organism reacts to the environments and produces a response changing its environment, which changes the organism again producing a dynamic and continuous change. This change creates new situations, contexts, ideas and experiences that increase the knowledge of the organism, in this case, the learner.

This theory applied in Education has different principles, including: the consequences of unpredictability for knowing, responsibility, morality and planning; the significance of networking and connectedness; non-linear learning organizations; setting conditions for change and self-organization; fostering feedback for learning; changing external and internal environments; and finally, considering students as open, complex and adaptive systems of cooperation.

In addition to that, complexity theory redefines “the basics” of education, away from a controlled subject-based education and towards an interdisciplinary, emergent and constructivist curriculum in which the learners have more freedom to set their own learning goals and priorities to construct their learning process in their own way.

However, this theory has many disadvantages such as the absence of authority which can create a non-controllable situation or a context in which colleagues don't create new responses to the environment and they are not able to improve themselves. To conclude, this learning system can fail if the participants or the situation are not optimal to create new contexts or ideas.

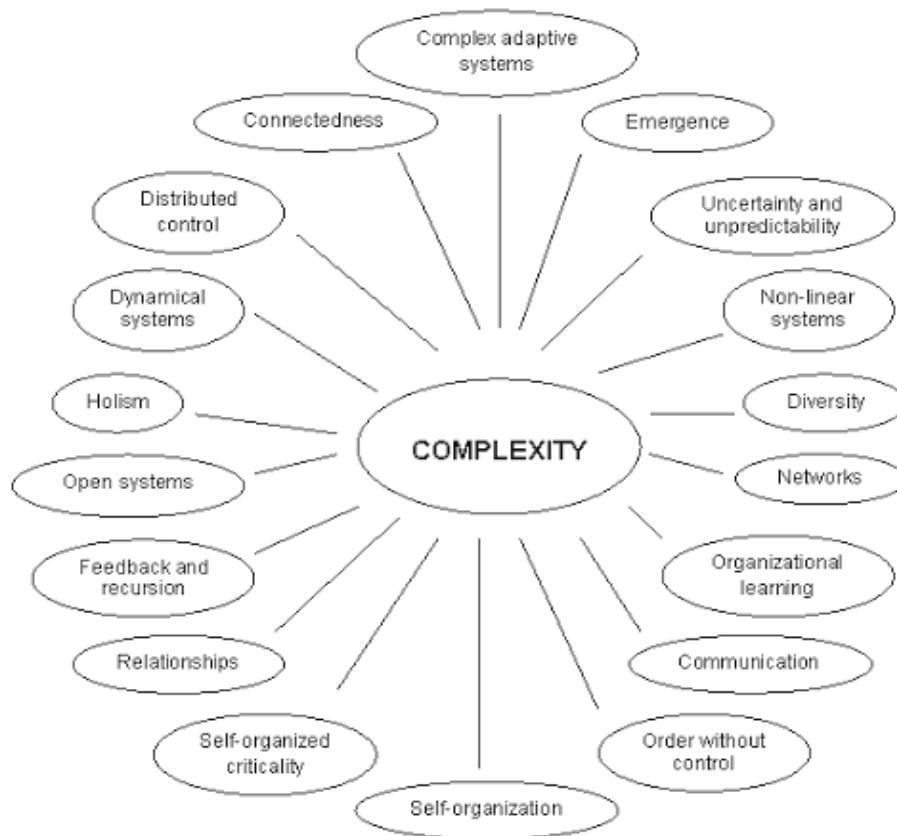


Figure 1: Components of the complexity theory

2.3.8 Chaos theory

This theory in the social science of Education was adapted from the chaos theory in physics and mathematics. Applying chaos theory to today’s educational systems grants the opportunity for change and transformation because, from this perspective, learning and thinking are not linear processes. Moreover, it provides with the atmosphere that conducts to the creativity and dynamism needed to implement a continuous improvement, organization transformation and development which are possible if the learners are able to take risks through their learning process.

It is important to remember that success is not constant; sometimes its progress is quicker than others. Therefore, as Akmansoy (2014: 511) suggests, “education system should not eliminate “unsuccessful” students, because they may make significant progress at a later date.”

This theory as applied to Education is based on a number of principles, which we will list as follows:

- Small-scale changes in initial conditions can produce massive and unpredictable changes in outcome.

- Very similar conditions can produce very dissimilar/different results.
- If something works once there is no guarantee that it will work in the same way a second time.
- The universe is largely unpredictable.
- Long-term prediction is impossible.
- Social behaviour, education and learning are emergent, and are marked by recursion, feedback, evolution, autocatalysis, openness, connectedness and self-organization.
- Learning takes place through the interactions of participants with their environments and finally, local rules and behaviours generate diversity and heterogeneity of practice.

2.4 Components of a PLE

As Castañeda and Adell (2013: 15) determine, PLEs are constituted by three main components:

2.4.1 Tools, mechanisms and activities to read

It comprises different information resources:

- Tools: blogs, wikis, newsletters, web pages, video channels, etc.
- Mechanisms: research, curiosity, initiative, etc.
- Activities: conferences, lectures, watching videos, reading articles and newspapers, listening audio-programmes, etc.

2.4.2 Tools, mechanisms and activities for self-reflection

It consists in using the information gathered to reflect about this content and finally to reach a conclusion.

- Tools: blogs, wikis, notebooks, video channels, visual presentations, web pages, etc.
- Mechanisms: synthesis, reflection, organization, structuring, analysis, etc.

- Activities: creation of a work notebook, creation of a conceptual map, publish an own video, discuss about an article of the newspaper in a social network, etc.

2.4.3 Tools, mechanisms and activities to share and reflect between users of a digital community

It includes a social environment to interact and learn in community. Every PLE includes a Personal Learning Network (PLN), which consists in the tools, the mental processes and the activities that allow the user to share, to reflect and to discuss. It also contains the attitudes that allow this brainstorming.

- Tools: social software, online activities, social networks, etc.
- Mechanisms: assertiveness, dialogue, capacity of decision and consensus, etc.
- Activities: meetings, forums, discussions, congresses, etc.

2.5 Types of Personal Learning Environments

2.5.1 PLEs and level of technology adoption

The composition of every PLE is determined by the creator's level of technology adoption. Depending on his/her level, there are the digital natives or the digital immigrants. On the one hand, digital natives are those who were born after the 1980s, when technology already existed. On the other, digital immigrants are those who were born in earlier times and discovered technology when they were adults, which complicates their technology learning to a greater or lesser extent.

Depending on these two types of technology adoption, there are two different Personal Learning Environments:

- A PLE of a digital native has plenty of information technologies, social networks, new and interactive programmes and digital resources. Moreover, a digital native has the capacity of using different elements of his/her PLE at the same time. Thus, they are configured as multitasking users who learn how to interact with various situations at the same time.

- A PLE of a digital immigrant is composed by digital tools, even though quality, quantity and use of such tools are very different from the other type of PLE approach. Moreover, this Personal Learning Environment includes other types of learning such as traditional resources like textbooks, encyclopaedias, television and emails.

The resources included in this type of PLE depend on the user's capacity of technology learning, interest and intrinsic motivation.

2.5.2 PLEs and learning styles

There are three different learning styles that can influence the creation of various Personal Learning Environments. They contain different digital resources depending on the strengths and weaknesses of each learning style:

- Visual learning style: A Personal Learning Environment based on this learning style primarily contains digital resources like pictures, videos, television programmes, documentaries, drawings, diagrams and concept maps.
- Auditive learning style: A PLE based on this learning style contains digital resources like music, audio recordings, podcasts, radio programmes and voice lessons.
- Kinetic learning style: A PLE based on this learning style is made of digital resources like movement interactive games, videogames, dynamics, interaction, physical contact between people with various ideas and experiences, active workshops, simulation and interaction using social networks.

2.6 Personal Learning Environments and Virtual Learning Environments

Virtual Learning Environments (VLE) is described as the dominant design of educational systems. Wilson (2007: 28) observes that "once it emerges, innovative activity is directed to improving the process rather than exploring alternatives." This educational design persists for a long period of time and it doesn't change its structure. However, this characteristic doesn't prove to be the best technical solution.

2.6.1 Characteristics of the dominant design

As Wilson (2007: 29) suggests, there are some characteristics that define the aims of a Virtual Learning Environment:

- The design of a VLE integrates a set of digital tools within a context, it isolates learning into individual units and it's not possible to share content between its users, the learning must be individual.
- There is a clear distinction between learners and teachers because a VLE considers that their capacities are different. For instance, the digital tools to organize and create are thought to be better for teachers than for learners. This type of relationship is contradictory for the learners: on the one hand they must be creative, participative and set their own learning objectives but, on the other, they are restricted to a passive role.
- All the users of the Virtual Learning Environment have the same learning experience because they experiment with the same content and the same digital tools. This aspect contradicts the idea of lifelong learning and individual experiences based on the user's' personal needs and priorities.
- A VLE restricts its content in different units and this restriction contradicts again the idea of lifelong learning and life-wide learning whose main characteristics include both joining all the learning experiences as a whole and the cross-organizational learning. Moreover, most of the content within a VLE is not available in the outside world, so it's unavailable to learners after they leave the Virtual Learning Environment.

However, at the same time, other innovative technologies are widely adopted and used by a large number of users. These alternatives (peer to peer systems, wikis, weblogs and social networks) represent the ideals of lifelong and personalized learning.

Thus, we count on a new design which can offer a large number of different digital tools and resources and which better reflects the needs of lifelong learners, away from the isolated experience of VLE. This design is called Personal Learning Environment (PLE).

2.6.2 Characteristics of the alternative design

As Wilson (2007:31) suggests, there are some characteristics that define the aims of a Personal Learning Environment. Firstly, the design of a PLE allows users to both consume and publish digital tools and resources. They can also organize, download or adopt this content to complete their learning aims and needs. Secondly, all the users of the Personal Learning Environments have a different learning experience because this design consists in a wide range of services that users can re-organize to create an individualized context. Thus, every user has a different set of tools and resources depending on their learning objectives and priorities. Thirdly, a PLE is based on sharing resources, so the users are able to edit, modify and republish all the content. The typical resources collected in a Personal Learning Environment are weblog postings, reviews, bookmarks, notifications, comments, social networks, knowledge bases and other communication tools. Furthermore, this design encourages learners to share their experiences with others for collaborative knowledge construction. Finally, one of the major requirements of the PLE pattern is the creation of new information, not just the aggregation of existing content. Thus, users can create collaborative filtering techniques through the use of sharing “playlists” and any required credentials to log in.

All these characteristics of the PLE design can be achieved using a combination of devices (laptops, mobile phones and portable media devices), applications (newsreaders, instant messaging, browsers and calendars) and services (bookmark services, weblogs, and wikis).

To conclude, nowadays the Virtual Learning Environment is clearly the dominant design. However, this hegemony is being challenged by the desire to join the informal and formal learning and to complete the aims of lifelong, life-wide and experience-based learning.

2.7 Objectives and advantages

The promise of Personal Learning Environments could be to extend access to educational technology to everyone who wishes to organize their own learning. PLE includes different types of learning like informal learning, workplace learning, learning from home, learning driven by problem solving and learning motivated by

personal interest as well as learning through engagement in formal educational programmes.

Besides that, it can tackle the issue that everyday informal learning is disconnected from the formal learning which takes place in our educational institutions. Personal Learning Environments have the potential to bring together these different worlds and interrelate lifelong learning with learning from school and college. It also facilitates participation in dispersed communities of practice and collaboration between different enterprises. PLE's might be useful or indeed central to learning in the future, as technologies are key drivers in educational change.

Personal Learning Environments could also facilitate different styles of learning and promote the multiple intelligences theory because we all have different styles of learning and approach learning in different ways. Bearing that in mind, a PLE could allow a learner to configure and develop a learning environment to suit and enable his/her own style of learning. PLEs could facilitate the ability to apply skills and knowledge in a particular context in order to find solutions to a specific problem.

Another advantage is that individuals can access their PLE everywhere because many different devices are now able to access the Internet and, in the recent future, connectivity will be available almost everywhere. Therefore, with the use of mobile devices and the spread of connectivity, it is possible to access theory and knowledge in the context in which it is to be applied.

The Net generation members use computers in their everyday life and they are slowly discovering new uses of the technologies for learning: instant messaging, file sharing, social networking and blogging. However, moral panics have emerged about the amount of time spent in front of the computer and the dangers of open Internet access. The common reaction of the education systems when confronted with something new is to control and ban it.

2.8 Examples of Personal Learning Environments in Education

There are a lot of different PLEs depending on the learning goals, priorities and characteristics of the users. Every Personal Learning Environment contains the digital tools and the content which allows users to increase their knowledge by sharing information and resources.

- Example 1:

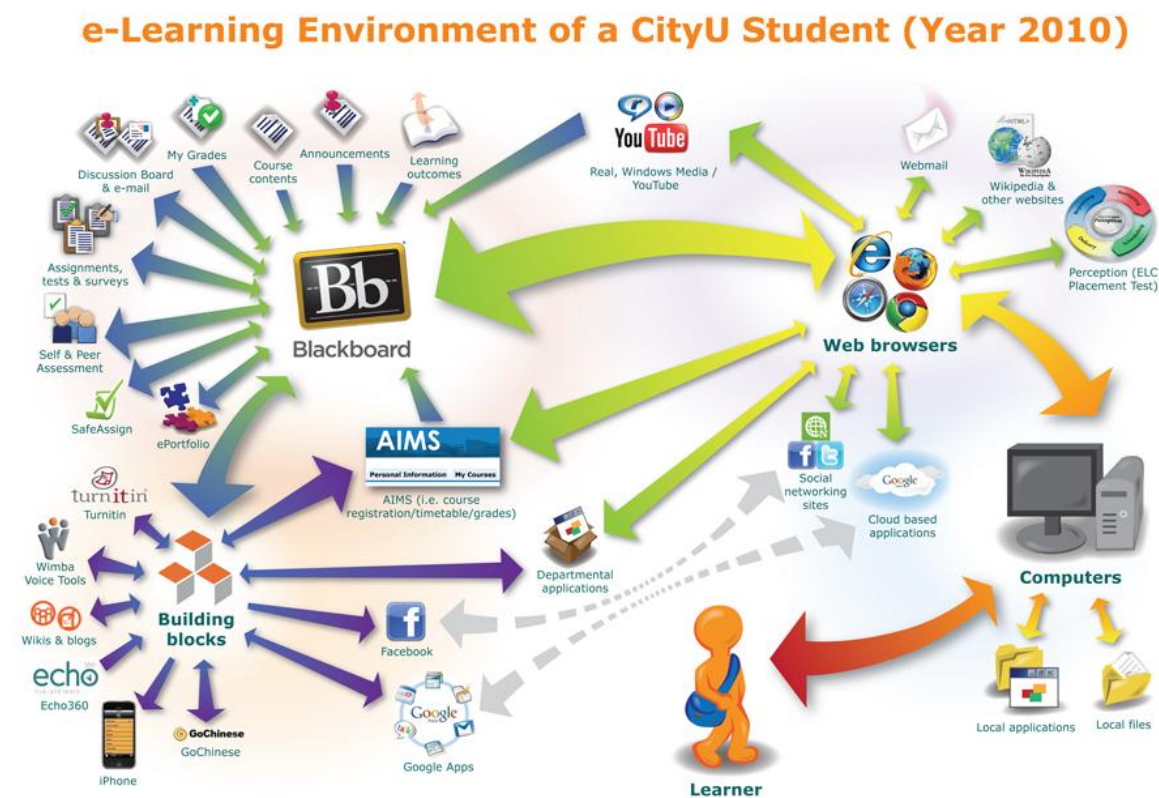


Figure 2: Example of a Personal Learning Environment by Spencer Miller.

[Source: <https://www.tes.com/lessons/DL5z957odZlrSA/personal-learning-environment>]

This is an example of PLE designed by a university student in the United States of America. Looking at the concept map, we observe that the device used to enter in his PLE is the computer and the digital tools are principally web browsers to access his email, social networks, cloud-based applications and some information websites. Moreover, he uses the web browsers to log in “Blackboard learn”, a webpage in which he can post information and important resources for his own learning and where his tutor can assess his academic progress. Finally, to increase the resources

posted in “Blackboard learn” he checks digital tools like announcements, course contents, discussion boards and e-Portfolios. He also uses another device, in this case his iPhone, in order to share with other people his findings, experiences and ideas through Google Apps, Facebook, Wikis and blogs, etc.

- Example 2:

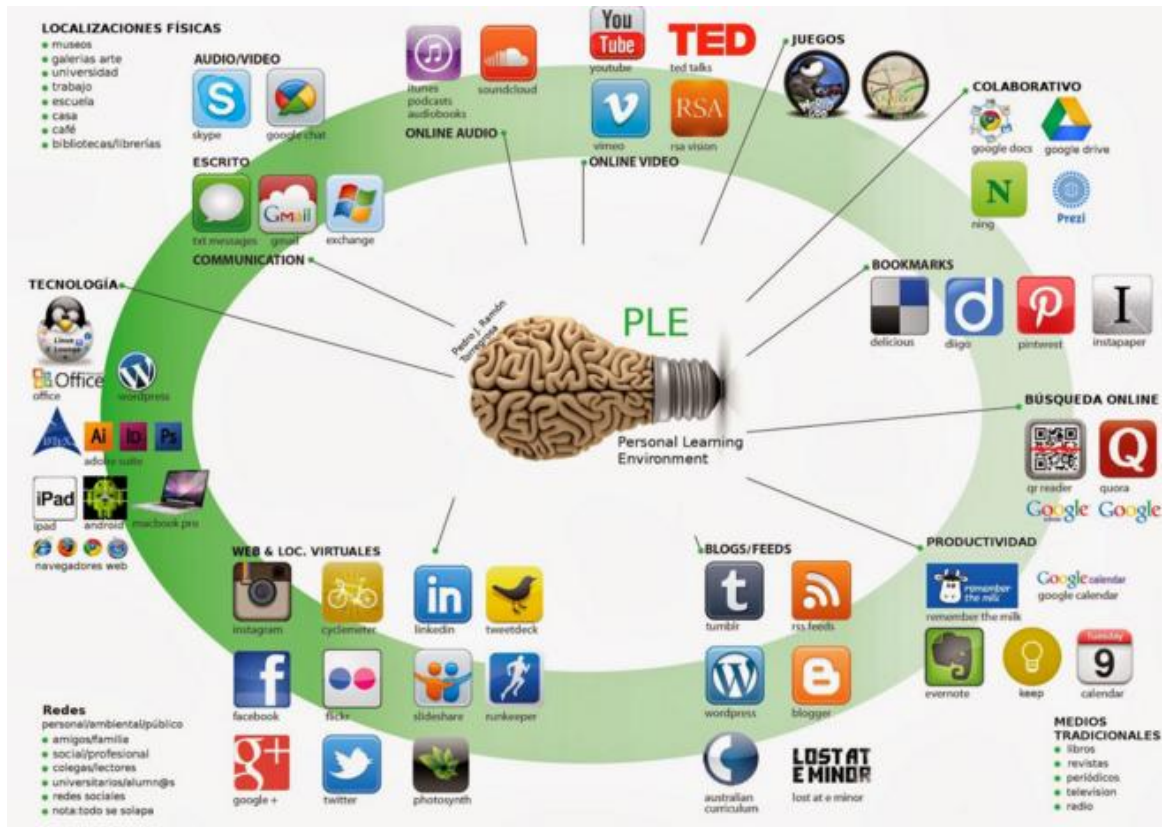


Figure 3: Example of a Personal Learning Environment by Pedro Ramón Torregrosa.

[Source: <http://edu-mooc.blogspot.com.es/2014/04/mi-ple-personal-learning-environment.html>]

This is an example of PLE designed by a Secondary teacher in Spain. As the concept map shows, his main web browsers are Google Chrome and Firefox, where he can find new information or digital resources to post in Blogger, Wordpress and Tumblr or to share and comment with other users through Google Docs, Prezi and Google Drive. Furthermore, he checks video resources using Youtube, Vimeo, Ted Talks and RSA Vision and audio resources using Soundcloud, Itunes, Podcasts and

Audiobooks. Finally, he talks with his colleagues through Skype, Google chat, Gmail or sends them text messages. However, he also shares ideas, photos and work experiences through social networks such as Instagram, Twitter, LinkedIn, Flickr, Google + or Slideshare.

He sets a distinction between the social networks used to contact with friends and the networks used to contact with work colleagues. To conclude, this user adds physical locations such as museums and libraries to his Personal Learning Environment.

- Example 3:

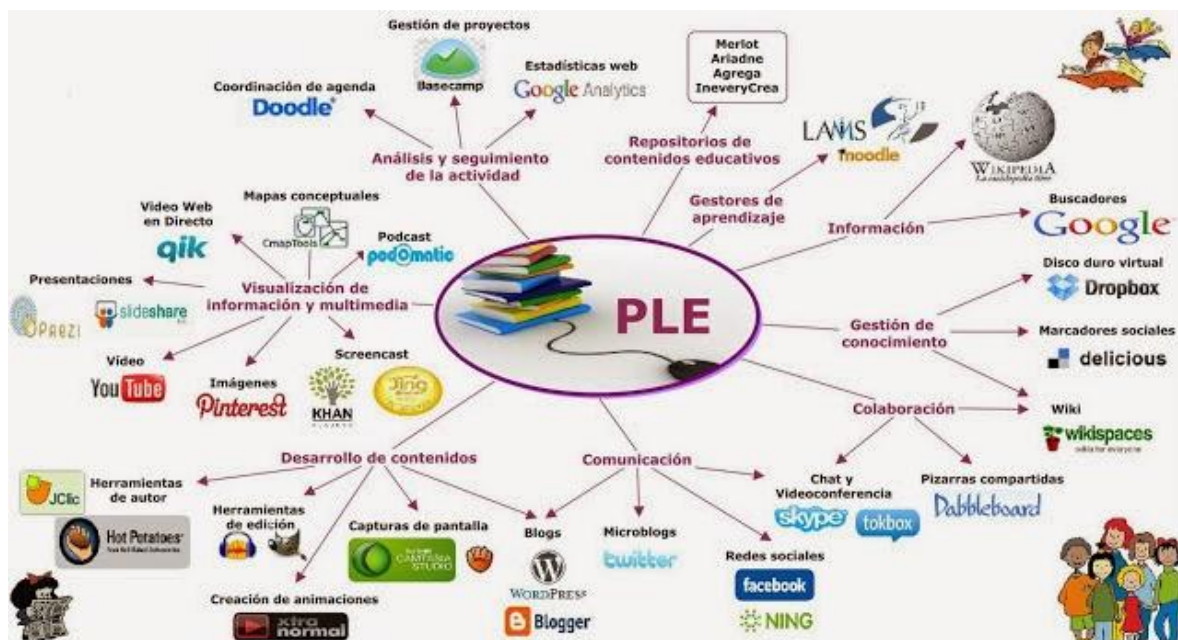


Figure 4: Example of a Personal Learning Environment by Marta Manso.

[Source: <https://plus.google.com/109235705958416866405/about>]

This is an example of PLE organized by a Primary teacher in Spain. As the concept map implies, she searches new information and digital resources using the Web browser Google and different web pages such as Wikipedia. Moreover, she checks online videos, pictures and presentations through Youtube, Pinterest, Slideshare and Prezi.

Then she organizes this information, depending on her learning goals, with Dropbox, Delicious and Wikispaces, and she shares the content through collaborative tools like Dabbleboard, a web site of shared boards, Skype, Wordpress, Facebook, Twitter and Blogger. Finally, once she draws conclusions and ideas from this content, she is able to create new information using creation tools like JClic, Gimp and Xtranormal, which is a free animation creator. To conclude, this new content is shared through the collaborative tools mentioned before.

- Example 4:

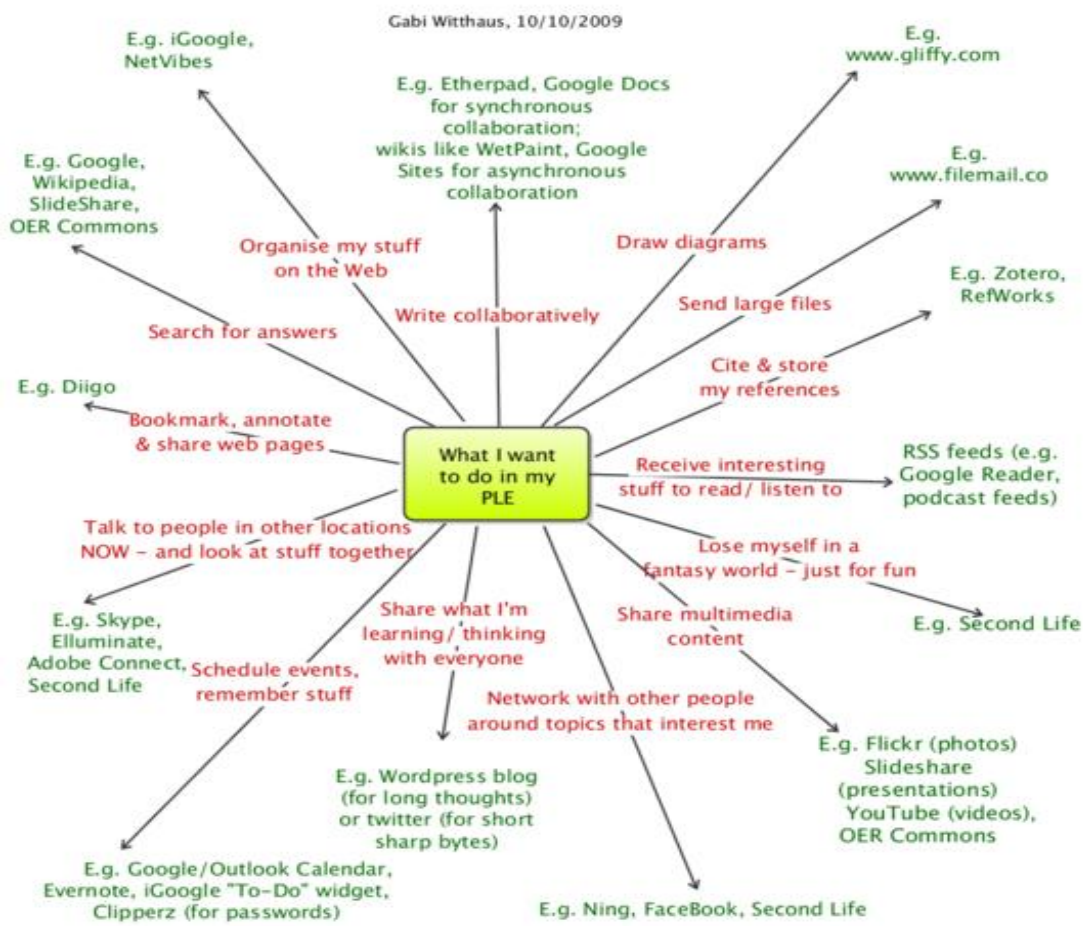


Figure 5: Example of a Personal Learning Environment by Gabi Witthaus.

[Source: <https://beyonddistance.wordpress.com/2009/10/12/ple-or-vle/>]

This is an example of PLE designed by a Technology teacher in United Kingdom. As this simplified concept map illustrates, he looks for new content and resources using

Google Chrome, Wikipedia and SlideShare. Then, he creates new content using web sites like Gliffy, a web to create diagrams, Diigo, a web to create bookmarks and Google Docs or Etherpad in order to write collaboratively with other people. Finally, he shares the new content in many different ways: he sends large files with Filemail, shares multimedia content with Flickr (photos), Youtube (videos) and Slideshare (presentations), plans and organizes his events with Outlook Calendar and Evernote, remembers his passwords with Clipperz, shares experiences, ideas and resources using Wordpress and Twitter and, finally, he contacts with people with the same interests and learning aims with Skype and Second Life.

3. Research methodology and implementation

The research methodology was qualitative in nature and the research strategy was that of a case study. In order to address this study, the data collection methods included an initial and a final questionnaire and the participants' observation.

3.1 Qualitative research methodology

The qualitative research is a type of scientific research especially effective in obtaining culturally specific information about the values, opinions, behaviours, and social contexts of particular populations. This research methodology provides with an in-depth and detailed understanding of meanings, actions, non-observable as well as observable phenomena, attitudes, intentions and behaviours. It gives voices to participants and probes their behaviours and actions. It also provides with information about the "human" side of an issue – that is, the often contradictory behaviours, beliefs, opinions, emotions, and relationships of individuals. Qualitative methods are also effective in identifying intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion.

The question format is open-ended, in which (unlike in a multiple choice question) possible answers are not suggested, the respondent answers in his or her own words, and the data format is textual, obtained from audiotapes, videotapes, and field notes. Finally, some aspects of the study are flexible: research questions are adjusted according to what is learned and participant responses affect to how and which questions researchers ask next.

I used this method in my research project because it is useful for studying a limited number of cases in depth or for describing complex phenomena in rich detail because it provides understanding and description of people's personal experiences situated and embedded in local contexts. In the initial and final questionnaires of my research project I used open-ended questions so as to give the participants the opportunity to respond in their own words, rather than forcing them to choose from fixed responses.

In addition, qualitative data in the words and categories of participants lend themselves to exploring how and why phenomena occur and researchers can use an important case to vividly demonstrate a phenomenon to the readers of a report.

The last important strength that I took into account is that qualitative researchers are particularly responsive to changes that occur during the conduct of a study (especially during extended fieldwork) and may shift the focus of their studies as a result.

3.2 Case studies

Case studies are a form of qualitative descriptive research that is used to look at individuals, a small group of participants, or a group as a whole. Researchers collect data about the users using participant and direct observations, interviews, protocols, tests, examinations of records, and collections of writing samples.

This kind of research examines the interplay of all variables to provide as complete an understanding of an event or situation as possible, which involves an in-depth description of the entity being evaluated, the circumstances under which it is used, the characteristics of the people involved in it, the nature of the community in which it is located and an interpretation of demographic and descriptive data such as cultural norms, community values, ingrained attitudes, and motives. In addition, case studies are the preferred method when the researcher has little control over the events and when there is a contemporary focus within a real life context. By this way, the main goal of this method is to offer new variables and questions for further research.

The case study method also incorporates the idea that students can learn from one another by engaging with each other's ideas and by asserting something and then having it questioned or challenged so that they can reflect on what they hear, and then refine what they say.

I used this method in my research project because case studies allow for a lot of detail to be collected and this data is normally much richer and of greater depth than can be found through other experimental designs. Moreover, in my project I had little control over the events because the data collected consisted in the ideas, experiences and opinions of the participants that interacted with each other in order to increase their knowledge. That's why I used this research method to provide the

as complete an understanding of the situation as possible, taking into account the characteristics of the people involved in it, their attitudes and values.

3.3 Questionnaires

Questionnaire is a type of research method based on a list of a research or survey questions asked to respondents, and designed to extract specific information. It serves four basic purposes: to collect the appropriate data, to make data comparable and amenable to analysis, to minimize bias in formulating and asking questions, and to make engaging and varied questions. In addition, questionnaires can be thought of as a kind of written interview. They can be carried out face to face, by telephone, by post or, as in my case, using a digital resource as “Google Forms”.

I used this method in my research project because large amounts of information can be collected from a large number of people in a short period of time and in a relatively cost-effective way because the researcher doesn't need to be present when the questionnaires are completed and the participants can answer the questions in their free time without any pressure. Furthermore, when data has been quantified, it can be used to compare and contrast the answers and may be used to measure change between the initial and final questionnaires.

In my research I tried to contact a variety of Primary English teachers that could answer the initial questionnaires in a short period of time because I wanted them to also participate in the Personal Learning Environment sharing experiences, opinions and digital resources between them. Finally, I used the final questionnaires to compare and contrast the answers and assess if the participants had achieved their learning goals.

3.4 Participant observation

Participant observation is a qualitative research method in which the researcher not only observes the research participants, but also actively engages in the activities of the research participants. This requires the researcher to become integrated into the research environment while also taking objective notes about what is going on. Most

researchers who conduct participant observations take on the role that they are interested in studying.

Participant observation provides the researcher with access to different types of information that may not be easily accessible to outsiders because they are often considered part of the culture. In a friendly environment, group and research participants forget that they are being observed, which reduces the likelihood that research participants will modify their behaviour or try to 'act well' because they are being observed. They might consider the researcher a part of the group and they will act as they normally would around him/her.

I used this method in my research project because I was interested in the interaction between English teachers in an environment where they can contribute with their opinions and knowledge. Moreover, I thought that it could be a good idea to share my view as a student with people who had more experience and knowledge. This would enable me to learn a lot of new digital resources and activities which I could use with Primary children in the English class. In return, they could obtain new information from a different perspective. During the process, I also fostered the other users' participation with my interventions.

3.5 Research implementation

First of all, I created an online initial questionnaire using the digital tool "Google Forms", in order to meet the participants of my research project, which are Primary English teachers of different schools in Catalonia between 26 and 52 years old. This tool allows the researcher to create an easy to use questionnaire that can be sent to all the participants simultaneously via email. Automatically all the responses are classified in a document of my Google Drive account. Moreover, this digital tool has the option to create diagrams and graphics with all the answers of a specific questionnaire in order to help the user classifying the findings. In this initial questionnaire, I included personal questions such as full name, age, gender, the school where they work or the school levels where they teach English. Moreover, I included some questions like whether they are members of any social network, if they are familiar with Personal Learning Environments, if they have any computer access and digital boards in the classrooms. In the final question, the participants

were asked to list situations in which they use the computer or the digital board with students [Annex 1].

After that, I used the digital platform Wordpress to create a blog in which to establish the bases of my Personal Learning Environment. With the aim to transforming it into a digital environment in which the participants share their knowledge and resources, I organized the blog in different sections. After creating the blog, I registered an account for each participant in my research, giving them the author's role, which enables them to write, upload photos, edit and publish their own posts. However, in my case I had the administrator's role in order to be able to invite new users, remove users, and change user roles. Moreover I had complete control over posts, pages, uploaded files, comments, settings, themes, imports and exports.

In terms of the PLE's design, on the one hand I added some gadgets on the blog such as an events calendar and a tag's list to manage the interventions depending on the participants' interests. On the other hand, I created different sections to classify the interventions in topics. At first, I included the following sections:

- Instructions: Initially, it contained the user's guide and the information the users need to participate in the blog.
- Activities in the English class: In this section I wanted the participants to include materials, printable documents or ideas which the other participants can apply or include in their English lessons.
- Books and articles: This section was intended for the participants to upload or share links from English magazines for Primary children, exercise books for teachers with activities and ideas or articles about learning methods or tips useful for English teachers.
- Teaching courses: In this section, the participants were expected to publish information about interesting conferences and courses for English teachers in Catalonia, in which they could acquire new and useful knowledge and resources for their self-learning.
- Forum: This section was included for the participants to share their experiences about different topics related to their English lessons with Primary students.

- About me: In this section I included some personal information about myself and the main goals of my research project to encourage the participants to complete these goals sharing knowledge between them.

In addition, I created four more sections with two different digital tools, Padlet (an easy-to-use digital board) and Symbaloo (an interactive desk), in which the participants added information and resources. In the section “Activities in the English class”, linked with the Padlet, the participants included printable documents, experiments and vocabulary worksheets classified by topics. In the section “Books and articles”, created also with Padlet, the participants included some English magazines for Primary children and many books with original ideas to implement in the English classroom. Moreover, in the section “Teaching courses”, created again using Padlet, the participants could share information about different contests for schools or conferences for English teachers. Finally, I created the section “Digital resources”, linked with Symbaloo, where the participants could include interesting web resources and digital tools easy to use in an English classroom in order to motivate children in their acquisition of new knowledge.

During the process, I modified some aspects of the initial Personal Learning Environment design to create an easy to use web page which was the basis of different digital resources linked between them in order to offer a large variety of tools to the participants. One of such changes affected the Instructions section, as the inclusion of other resources implied extended information, such as the username and the password to log in Padlet and Symbaloo, the minimum number of entries a week for each participant or tips on how to participate in each section.

In latter stages of the blog evolution, I changed the “Forum” section by delimiting the possible topics because the participants had many doubts about the topics they had to talk about or how they could add a post in this section. Thus, I wrote an introduction explaining that this section was created to share opinions and experiences about common classroom management problems that we could find in our English lessons and how we could try to solve them. I also included a post talking about possible solutions that I applied in my English lessons when I was in a school placement. This change helped the participants to start using the “Forum” with its primary purpose.

To conclude this explanation, I have organized a diagram showing the final design of my PLE:

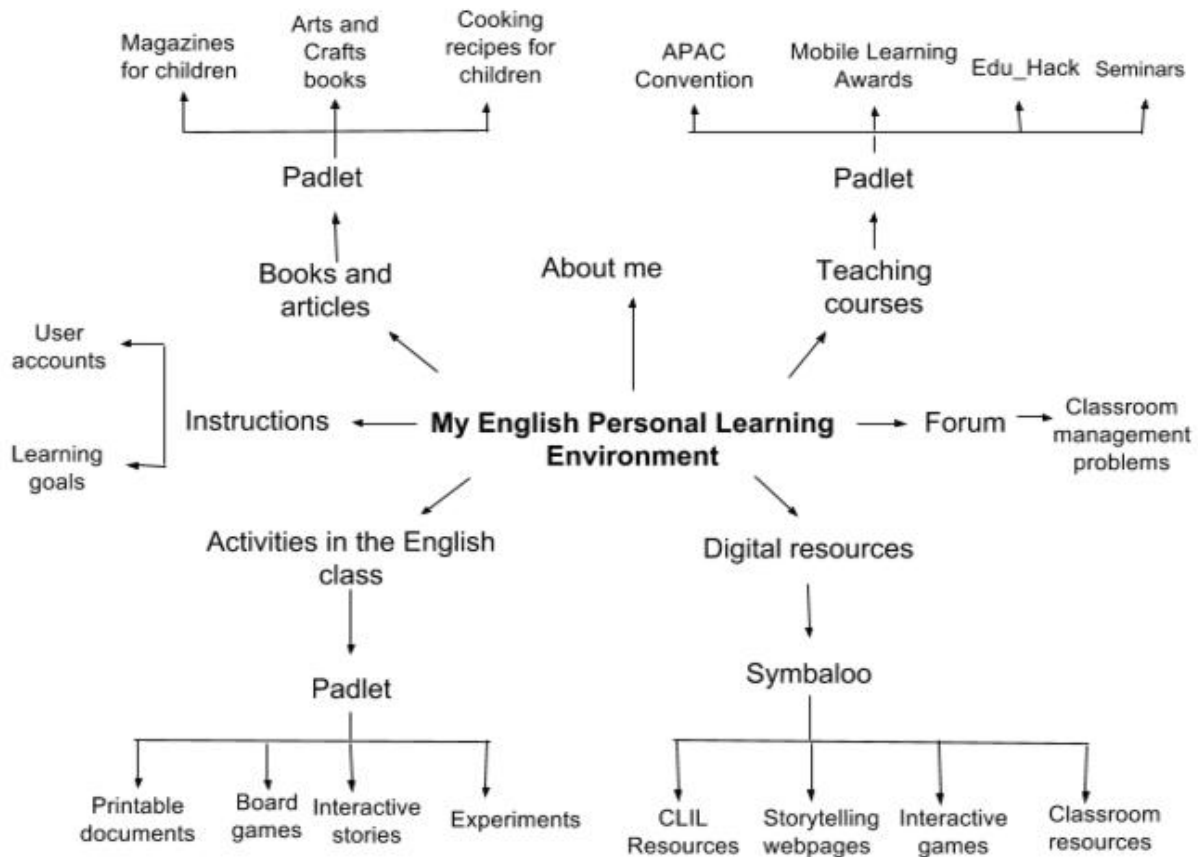


Figure 6: Design of “My English Personal Learning Environment” blog.

[Source: <https://myenglishpleblog.wordpress.com/>]

My final activity in the project was to create a final questionnaire using Google Forms in which I asked the participants about their acquisition of new knowledge and self-assessment, together with their opinion about the use of a Personal Learning Environment as a learning method for Primary English teachers [Annex 2]. Finally, I compared the list of situations included in the initial questionnaire in which the participants used the computer or the digital board in the English class with the list of situations included in the final questionnaire in order to check out if they had learned new resources and if they knew how to apply them in their English lessons.

4 Data analysis

4.1 Initial questionnaires

After the research I could analyze the results in order to reach a conclusion. First of all, the results of the initial questionnaire [Annex 1] with six English Primary teachers between 26 and 52 years old are the following:

On the one hand, all the schools where the participants are teaching in are located in Catalonia: The school Tomàs Raguer and the school Vedruna are from Ripoll, Segimón Comas School is from Sant Quirze de Besora and the Mare de Déu del Sòl del Pont school is from Roda de Ter. Furthermore, most of the participants teach English in Initial Cycle, secondly, in Upper Cycle, thirdly in Middle Cycle and finally, some of them teach English also in Pre-school.

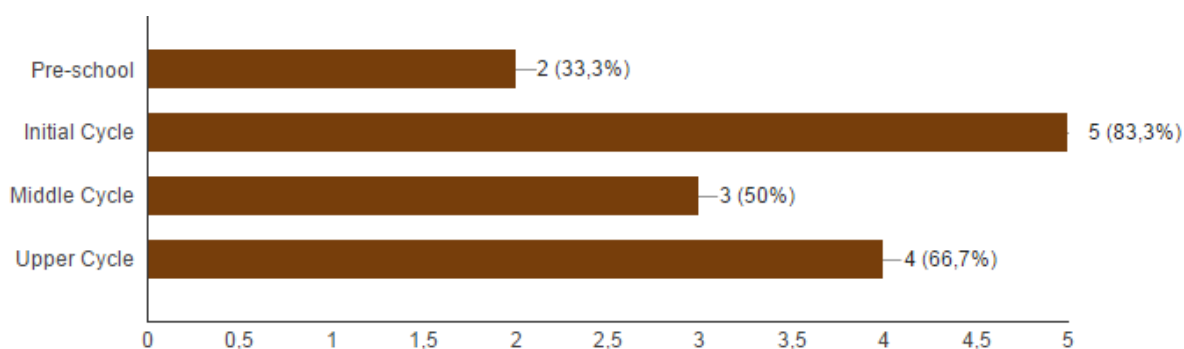


Figure 7: School levels where the participants teach English

On the other hand, only half of the participants are members of any social network: three of them use Facebook as their favourite social network; two use Instagram; finally, Twitter and Youtube had a user each. However, no one uses Tuenti, LinkedIn or any other social network. A possible conclusion of these answers is that Facebook has more uses and utilities which are more useful, easy-to-use and adapted to the participants' needs and priorities. For example, it allows them to contact with family and friends while, at the same time, it helps them participate in different groups in which sharing opinions and ideas about their hobbies or their interests. However, the other social networks are focused exclusively on other kind of content such as videos, photos or the users' working life. In conclusion, most of these teachers search for a social network in which to integrate their formal and informal learning in

an easy-to-use digital resource which can be checked anywhere using a variety of devices.

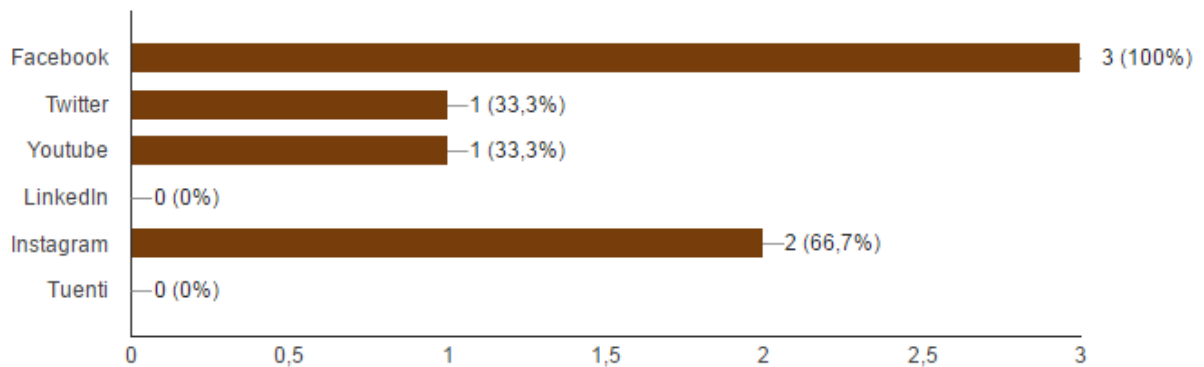


Figure 8: Social networks in which the participants are members.

In addition, not all the participants are familiar with the term “Personal Learning Environment” and the same participants who know this term are those who give a collaborative use of social networks. Therefore, we can say that people who know the advantages and possible uses of PLEs tend to agree with their purposes and try to use some social networks or digital resources to give their experience and knowledge a collaborative use.

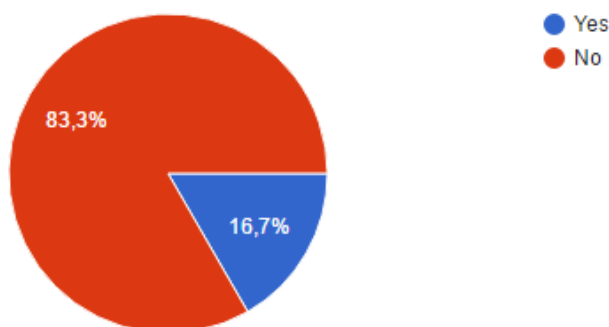


Figure. 9: Participants familiar with the term PLE

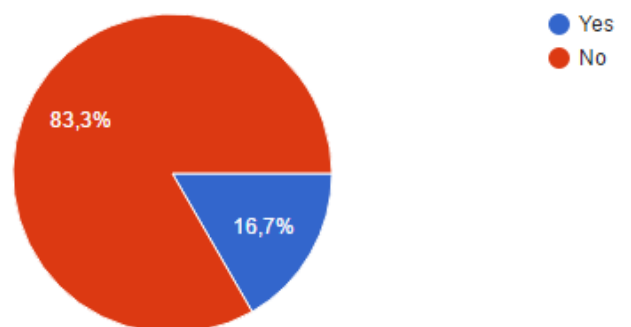


Figure 10: Participants who give a collaborative use of social networks

Moreover, all the participants have computer access in their schools and a digital board in all the classrooms where they teach English. They are also proficient with basic software applications such as Word processing and Internet applications. In addition, all of them think that both computers and digital boards are useful to encourage students. However, only one participant is not familiar with applying interactive games, CD ROMs or readers in her lessons. Therefore, we can say that the younger English teachers are more accustomed to apply technology and digital resources in their classroom routines and activities. The other participants tend to use computers or the digital board only for a special activity in a specific lesson.

Finally, the list of situations in which the participants mention to use the computer or the digital board with students is the following:

- When they work with the student book or activity book in order to work together in the classroom.
- When they listen to songs or watch a video.
- To put in practice the routines (weather/day chart)
- To provide visual support to their students (images, videos, etc.)
- To exemplify some activities in which the students don't know how to complete it.
- To project the students' work in front of their classmates.
- To complete different interactive games.
- To search new information using different web browsers.
- To explain the contents with examples (digital book, games, etc).
- To do more practise about a topic with extra digital activities.
- To write texts or sentences for all the students using the digital board.
- To make different activities related to festivals of other cultures.
- To add information, images and videos to the school blog.
- To make a review about specific vocabulary.
- To practice dialogues between students.

- To practice digital reading with interactive books and stories.
- To watch videos using different web pages such as Youtube or Vimeo.
- To learn songs using the lyrics of a video in the digital board.
- To practice English with listening activities.
- To record the voice of the students in order to practice speaking.
- To allow students writing comments on the school blog.
- To test the students with online exercises and activities.
- To do some projects in class using online resources and digital tools.
- To project digital course books.

In conclusion, all the participants try to use technology in their English lessons as a way to motivate students to learn new vocabulary with interactive activities, to make listening comprehension with a video on Youtube or Vimeo or to play a specific game using the digital board. Besides, some participants also try to practice reading using interactive books or stories that can be projected on the digital board or to involve students with the activities done in the school by writing comments in the school blog. Finally, some of the participants involve different digital tools to complete the weather routines before starting the lesson or to search for images or information that some students want to know in a specific group exercise in order to help them become autonomous learners.

4.2 Blog “My English Personal Learning Environment”

The second part of the research, which constitutes the core of the project, is the Personal Learning Environment in which the six English Primary teachers participated in the different sections adding opinions, materials and digital resources during two months. The analysis of the users’ participation is the following:

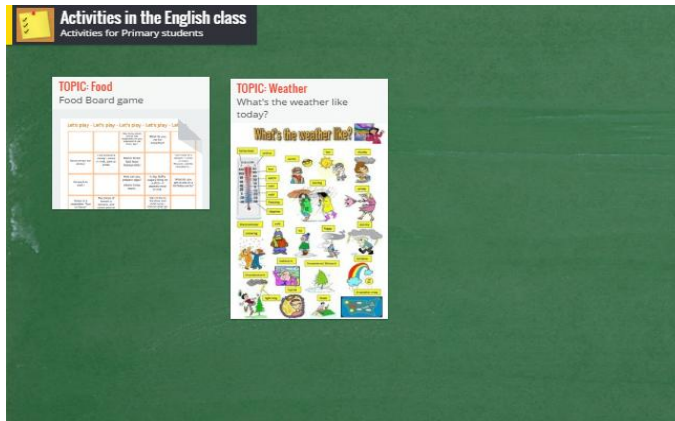


Figure 11: “Activities in the English class” section at the beginning of the project.

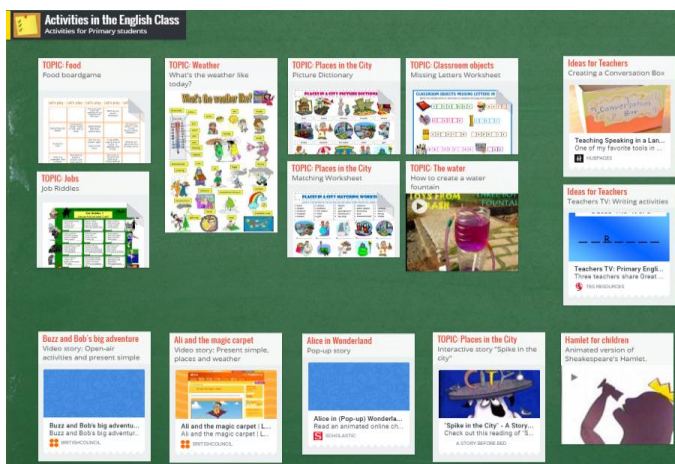


Figure 12: “Activities in the English class” section at the end of the project.

In the section “Activities in the English class” the users added some vocabulary worksheets about classroom objects, places in the city and the weather. They also included two different printable board games and an experiment to create a water fountain with Primary students as well as many different kinds of books and short stories such as a pop-up story, an interactive story and two video stories.

However, not all the materials included are addressed to children; the users also included two ideas for English teachers. The first one is an article that shows how to create a “conversation box” in order to encourage the pupils to speak in the English lesson and improve their fluency. The second one is a short documentary that includes different and easy writing activities to carry out during the English lessons with Primary Students.

Therefore, we can see that most of the posted materials are innovative and motivating for children. Far from the traditional worksheets, they want to apply group games, experiments and storytelling as well as speaking activities or original writing exercises in their lessons. Furthermore, the information sources are quite varied: in the end the section included quite a big number of web pages that offer the opportunity to download or visualize the material posted without any costs.



Figure 13: “Digital resources” section at the beginning of the project.



Figure 14: “Digital resources” section at the end of the project.

In the section “Digital resources” the users added a lot of web pages to work different subjects in English with Primary children such as maths, science, computer skills, environmental skills, life skills and health skills. They also included a lot of web pages containing thousands of printable worksheets, flashcards, games and

vocabulary lists classified by topics as well as web pages with online storybooks and adapted versions for children.

In addition, the users included different web resources easy to use in which the students can create their own stories using drawings or pictures and record their voice while they read the whole story; a web page in which they can create their own character; a web page in which they can record in groups their own radio programme and finally, a web page in which they can contact with students of other schools in order to talk with them in English by voice or by chatting.

This observation allows us to draw a number of conclusions. For example, the participants tend to add materials in which the students can be the protagonists of their own learning through creating stories or radio programmes. Moreover, they give importance to storytelling in order to increase the reading and listening comprehension of students as well as games and flashcards to introduce or reinforce new vocabulary or grammatical constructions.

However, the participants tend to add web pages with tons of different material instead of specific content. A possible reason is that they prefer to include these web pages in the blog because it enables every teacher to download and apply the most useful content for his/her lessons and the web page can become interesting for English teachers of every school cycle.

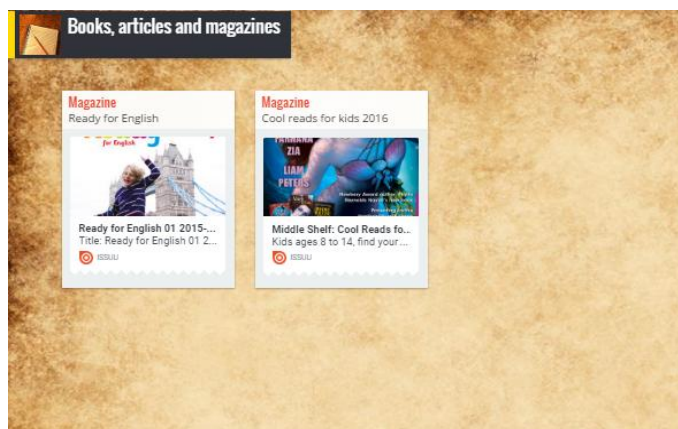


Figure 15: "Books and articles" section at the beginning of the research project.

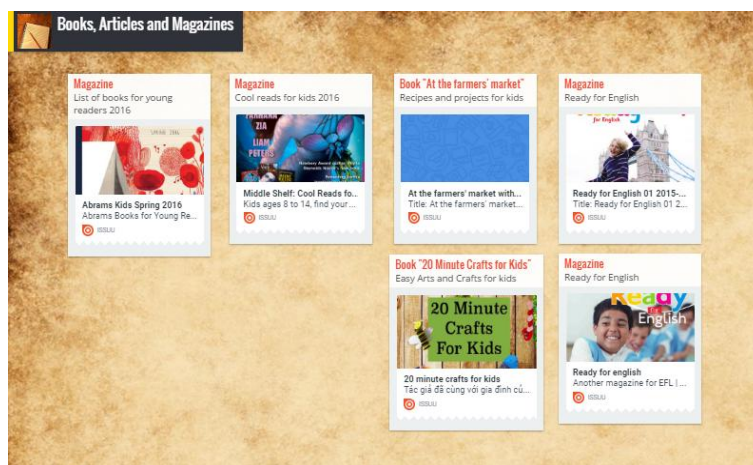


Figure 16: “Books and articles” section at the end of the research project.

In the “Books and articles” section the users added English magazines for Primary children which contain short stories, comics, games, vocabulary posters, articles about the British culture, articles about travelling and an interview of a famous person such as an athlete, a singer or an actress. Moreover, they included two different books. The first one, called *At the farmers’ market*, is composed by a number of cooking recipes for children in English, and the second one, called *20 minute crafts for kids* contains a variety of easy arts and crafts for children with recycled materials. In addition, the users included two book catalogues for children that include a lot of different titles classified by ages and by topics such as fantasy, science fiction, realistic fiction or picture books. Finally, all the materials posted in this section are from the digital resource Issuu, which allows the users to visualize online materials as a book without any subscription.

Therefore we can conclude that the participants are interested in finding Real Books for their students in order to motivate them to read in English autonomously so as to increase their reading comprehension while they enjoy with the story. Besides this, the English magazines are very useful for them because they include a lot of short stories and activities that can be done in a short period of time, for the students who are faster doing the activities and who have to wait for the others.

However, not all the material is addressed to the pupils. The two books mentioned before include a lot of ideas for teachers to practice arts and crafts in English, as a lot of schools are applying nowadays, and easy cooking recipes for children that can

be interesting too. Among the participants there are four English teachers who carry out arts and crafts in English in their schools so these resources are very useful for them.

Finally, the only materials which were not included in the section are some articles for English teachers which were planned to appear in the section at the beginning of the research project. A reason can be that the participants are more interested in resources that they can apply in their lessons in order to help de students increase their knowledge through their learning process instead of searching for articles which only include theories of education.

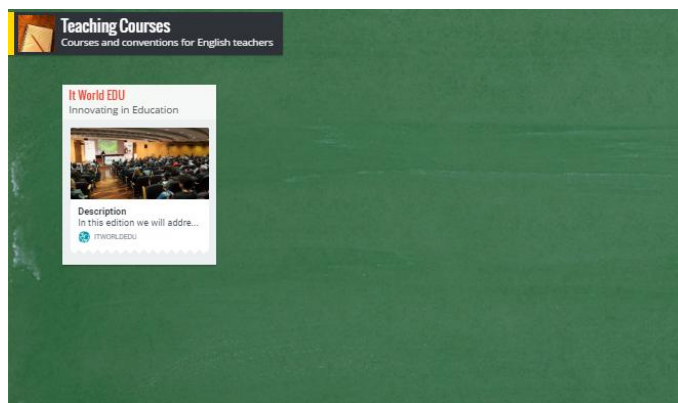


Figure 17: “Teaching courses” section at the beginning of the research project.

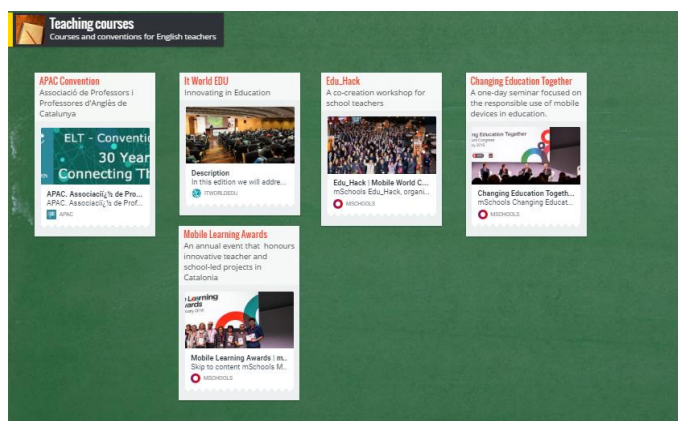


Figure 18: “Teaching courses” section at the end of the research project.

In the “Teaching courses” section, the users added information about conventions for English teachers such as the APAC Convention for teachers in Catalonia which takes place in Barcelona once a year. Moreover, the participants included information about technology conventions like “It world EDU” addressed to innovative techniques in education, “Changing Education Together” which is a one-day seminar focused on the responsible use of mobile devices in education and “Mobile Learning Awards” which is an annual event that honours innovative teachers and school-led projects in Catalonia. Finally, the users also included information about a co-creation and collaborative workshop for school teachers in English to show them strategies, activities and ideas to apply the mobile phones in their lessons as a useful device for autonomous and collaborative learning.

After these observations, we are drawn to conclude that the participants are interested in attending conferences and workshops in which they can learn about how to apply technology in their English lessons. There may be various reasons for this, such as the importance nowadays is given to technology in the school to encourage the pupils in finding new ways of learning. In addition to this, at least four of the participants in the research project work in schools which participate actively in the contest “Mobile Learning Awards” Segimón Comas School won the first prize last year and Vedruna School obtained the third prize.



Figure 19: “Forum” section at the beginning of the research project.



Figure 20: “Forum” section at the end of the research project.

Last but not least, in the “Forum” section the users shared experiences about common classroom management problems and how they try to solve them. I published the first post sharing my experiences so as to encourage the participants to share their opinions. It was answered with a post on creating videos about what is learnt in a specific unit to increase confidence in shy pupils speaking English because they love to watch these videos. Another interesting idea coming in this conversation was to carry out some short theatre plays to help the students feel the need to speak in English with the rest of the class. However, the participants insist in the fact that we should not be too pushy because each student has a “silent” period that the teachers should respect.

After observing the participation in the “Forum”, we can conclude that at the beginning of the research the users were not very disposed to share their experiences but after my intervention they started to participate and interact between each other in a collaborative and respectful way in order to learn new methods to apply in their English lessons.

4.3 Final questionnaire

In order to complete the research project, the six participants answered a final questionnaire [Annex 2] and the most remarkable results are the following.

On the one hand, all of them participated in the Personal Learning Environment between four and six times, at least once in each section, and they agree with the fact that all of them learnt new digital resources and materials useful for their English lessons. On the other, the sections they mention as the most useful are “Digital resources” and “Activities in the English class” because they include a lot of web pages and free materials such as printable documents, flashcards, interactive games, songs or videos of any topic that they can apply in their lessons.

Moreover, three of the participants would add another section in the blog called “Storytelling” in which they could introduce all the material related to interactive books for Primary children classified by ages and topics. The remaining participants don’t see the need to add more sections to the blog.

Finally, all the participants implemented new digital resources and materials in their English classes since they started participating in the blog "My English PLE". The materials used are printable documents, interactive games, the story *Spike in the city*, English magazines for Primary pupils and a book entitled *Easy arts and crafts for Kids*. In addition, one of the participants started using the computer and the digital board in her English lessons thanks to the digital resources included in the blog because she was not familiar with this kind of materials before taking part in the project.

In conclusion, all the participants think that the blog is useful for their English lessons and they applied a variety of resources in their classes because they saw that the pupils were motivated and encouraged to learn and practice English with these different materials. In addition, they tried to change their routines including a different digital resource in each lesson to introduce the new vocabulary or to review the new contents at the end of the lesson.

5. Conclusion

As an extension to the concluding comments made on each section of the blog included in the previous part, after the research we can reach to some conclusions referred to the different stages of the project: the theoretical framework, the research methodology and the findings.

First of all, the blog design agrees with an important aim of Personal Learning Environments which is that consumers become producers through creating and sharing and learners become simultaneously producers and consumers of learning materials. Moreover, it takes into account the principles of PLEs which are the ability to create, to share ideas, to join groups and to publish content that will be available for the other users, who will use this material to increment their knowledge.

Another key factor that the participants of the research project took into account in their interventions is that learning takes place in different contexts and situations and materials will not be provided by a single learning provider. A lot of individuals will take part in this collaborative learning by adding information and giving their opinion about different topics, experiences and ideas.

In addition, there are many different pedagogical foundations which are visible in the blog design such as the theory of Rhizomatic learning that requires the creation of a digital context in which to build the bases to construct the knowledge which can be modified and reconstructed throughout the learning process. Another pedagogical foundation is the Connectivism theory whose key factor is the ability to interconnect topics by sharing different information sources and digital tools that can be implemented in a variety of situations and contexts. Moreover, the Complexity theory explains that the participants can react to the environments in many different ways and they also produce a response which changes its environment, this change creates new situations, contexts, ideas and experiences that increase the knowledge of the participants.

The last pedagogical foundation included in the PLE design is the theory of Lifelong learning. In this approach, learning is seen as individuals spending occasional periods of formal education and training throughout their working life to discover and apply new abilities, ideas, materials and resources to improve their working experience.

Moreover, by intervening and sharing materials, the participants created a PLE which has a lot of similarities to a digital native PLE. It contains plenty of information on technologies, social networks, new and interactive programmes and digital resources. Moreover, the blog “My English Personal Learning Environment” includes sections to read and download new information and materials, sections to self reflection and sections to share and reflect between users of this learning community. In the previous part I analyze these interventions and I reach to some conclusions referred to each section of the blog.

To conclude, the findings in the final questionnaire show us that the main goals established at the beginning of the project were completed with the interventions of the participants in the blog “My English PLE” because all of them increased their knowledge by sharing materials and ideas in the different sections included in the blog, and they were able to apply them in their English lessons with very positive results. Moreover, at the end of the project the blog continues active because the participants wanted to add new resources and sections in order to increase the variety of materials available in a unique, private and easy to use web site which they can check during their English lessons.

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7. Appendices

7.1 Appendix 1: Initial questionnaire

- Name and surnames
- Age
- Gender
- Name of the school you are teaching in.
- School levels where you teach English.
 - a) Pre-school
 - b) Initial Cycle
 - c) Middle Cycle
 - c) Upper Cycle
- Are you a member of any social network?
- If your answer is "Yes", which social network?
 - a) Facebook
 - b) Twitter
 - c) Youtube
 - d) LinkedIn
 - e) Instagram
 - f) Tuenti
 - g) Others
- Are you familiar with Personal Learning Environments (PLE)?
- Do you give a collaborative use of social networks?
- Do you have computer access at school?
- Do you have a digital board in the classrooms where you teach?
 - a) Yes, in all the classrooms.

b) Yes, in some classrooms.

c) No, we have no digital boards in our school.

- Are you proficient with basic software applications?

- If the answer is "Yes", which software applications do you use?

a) Word processing

b) Internet applications

c) CD ROMs

d) Games

e) Others

- Do you find the use of computers useful for students?

- List situations in which you use the computer or the digital board with students.

7.2 Appendix 2: Final questionnaire

- Name and surnames
- How many times did you participate in the "English Personal Learning Environment"?:
 - a) 1-2
 - b) 3-4
 - c) 5 or more
- Do you think that this learning method is useful to acquire new knowledge?
 - a) Yes, I think it is useful and I learned new digital resources and materials.
 - b) Yes, I think that is useful but I didn't acquire new knowledge.
 - c) No, I think that this method it is not useful.
- In which sections of the blog "My English PLE" did you participate?
 - a) Forum
 - b) Activities in the English class
 - c) Digital Resources
 - d) Books and articles
 - e) Teaching courses
- Which section do you think is the most useful and why?
- Would you add another section in the blog?
- If your answer is "Yes", which one and why?
- Did you implement new digital resources and materials in your English classes since you started participating in the blog "My English PLE"?
- If the answer is "Yes", which resources and materials did you use?