THE PERLE PLATFORM, MOODLE AND ADAPTATIONS IN TECHNOLOGY-BASED TEACHING FOR ESP

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— FULL PAPER —

Abstract

This paper reports on the PerLE digital platform for e-learning and digital community at the University of Calabria. PerLE was conceived as a digital environment to host blended learning support solutions for courses using Moodle, and to offer a community space for learning. Through the experience of digitally enhanced teaching initiatives which, with the advent of the Covid-19 emergency, were transformed into fully online course delivery, we report on how the platform uses Moodle, and the technical and pedagogical adaptations which have been applied in the wake of these circumstances. The teaching experience we focus on is ESP on a postgraduate course in Document Management. The purpose is to comprehend the affordances of digital technology while encouraging teacher sensitivity to the learner experience in a proposed communicative classroom dynamic, with careful pacing of lesson activities, input, and attention to the implications of affect and cognitive load for learners.

Keywords – eLearning, ESP, Moodle, PerLE platform, technology-based learning.

1   INTRODUCTION

In this paper, we report on the history and development of the PerLE platform, created at the Department of Culture, Education and Society (DICES) at the University of Calabria, to offer support and engagement for our campus community of students and teachers, and specifically with reference to language teaching. We also report on how the use of a blended learning approach can evolve through new ramifications in teaching strategies due to the experience of fully online teaching and learning during the Covid-19 health emergency and lockdown.

The paper will review and comment the following aspects:

1. The original concept and characteristics of the PerLE digital platform at DICES

2. Blended learning initiatives for institutional courses using Moodle in PerLE

3. Adaptations to teaching approaches following online teaching during the lockdown.

We begin with a brief introduction to the PerLE platform, its design and purpose, proceeding with a description of early initiatives in the sphere of blended learning and the consequent adoption of a MOOC style model for the presentation of course contents for activities and project completion. With the advent of the Covid-19 global health emergency and subsequent lockdown in 2020, all teaching went fully online. This paper is concerned with adaptations to teaching approaches which are a consequence of lessons learned during the fully online experience, as we now begin to return to the physical place of our university to continue with teaching in the multimedia classroom with a strong Blended Learning component.

2   THE PERLE PLATFORM AT DICES

2.1   PerLE - Concept and Design

The PerLE digital platform was originally conceived in 2011 at the one onetime Department of Linguistics, now the Department of Cultures, Education and Society (DICES), at the University of Calabria, by a group of researchers whose aim was to create a digital open-source dynamic online learning environment for the campus community. The researchers' intention was to make it possible both to offer blended learning support and resources for institutional courses, and to promote "community of practice" [1] in terms of making digital spaces available for learning, research, and creativity in a spirit of collaboration and sharing. The platform was intended also as a showcase for creation and productivity and sought also to encourage involvement through engagement with social media, and, among others, use of elements such as the PerLE campus radio (Radioperle) and a YouTube channel.

Figure 1 - (2011) PerLE access dashboard

As can be seen from the digital icon for PerLE in Figure 1, the original conception found expression in four macro areas – Create – Study – Communicate – Share. In the development of these areas, an important concept from the beginning was that expressed by the term modularity, which, in our interpretation, means the freedom to employ a Learning Management System (LMS), in this case Moodle, with the integration, on the basis of perceived need, of additional elements, be they other LMSs, tools, software or any instrument considered useful to learning or the creative activities fostered and hosted on the platform. The Moodle in PerLE served primarily as a support in a Blended Learning scenario for teaching, materials, learning objects and services, making course content available to students in various digital formats as well as offering activities and exercises to be evaluated and graded according to the settings available in the Moodle. Using a variety of webtools and with the aid of the Moodle LMS, initiatives were promoted which aimed to involve students in learning related to course content, the acquisition of useful digital skills, and collaboration among peers in the learning process. For the teacher managing courses, Moodle was useful in offering the opportunity to track student activity and to monitor both consultation of materials and course content and completion of activities and tasks. Early course related initiatives included project-based approaches such as digital artefact creation in a storytelling project [2], the creation of an Albanian language grammar e-Book [3], and a short summary writing course for examination preparation in Modern Languages [4].

For the purposes of this paper, we will focus on English language teaching, in the sphere of English for specific purposes (ESP) on a postgraduate course in Document Management and Storage. Prior to this course, which was launched in 2016, the platform had been used as a Blended Learning support for

English language courses in Law, Economics, Tourism, and Educational Sciences, as well as Albanian and Italian L2, and it would be fair to say that, initially, the Moodle was employed primarily as a useful space within which to store and make available course content and materials, which students could conveniently refer to for study or download, both in class and at home. In the early stages, modest attempts were made to create structured learning pathways using Moodle.

2.2 Structured and sequenced content in the PerLE Moodle

The idea of employing the Moodle as a base for more purposefully structured course content came gradually and later with, for example, initiatives such as an experiment conducted with students in Educational Sciences attending a Computer Workshop course, in which the students were invited to create an Italian language digital storytelling artefact. In this case, the Moodle was used to present a learning pathway, guiding students through a series of learning activities presented according to the format normally associated with the presentation design of the MOOCs. found on large course provider websites such as those of Coursera or Udacity (see Figure 2 below).

Figure 2 - (perledecreatività – Week 2)

Questionnaire-based feedback following this experiment showed that the project was popular with students principally because of the structured and guided learning component and available tutor support, the consequent learner empowerment, and the sense of having acquired useful digital skills. On this occasion, self and peer evaluations were also experimented.

With the launch of the postgraduate degree course for Document Managers at Unical, it was decided that the English language workshops on the course presented in Moodle should be broken down into thematic Modules for structured and comprehensible presentation to students and for clearly paced use in blended learning scenarios. This entailed the use of the digital materials online in technologically equipped classrooms, allowing the teacher to pursue the course programme and to employ solutions which experimented with activity associated with the principles of the flipped classroom and blended solutions according to perceived learning needs and opportunities.

It was also decided that it would be useful to continue to follow the model of the MOOC presentation style for project-based learning activities related to the profession of the document manager and the world of professional work. One such project, integrated with the course modules, was entitled "Your Company Profile Project". This entailed the completion of a series of preparatory language-based activities with subsequent design and creation by students of a brochure profiling a company of their choice.
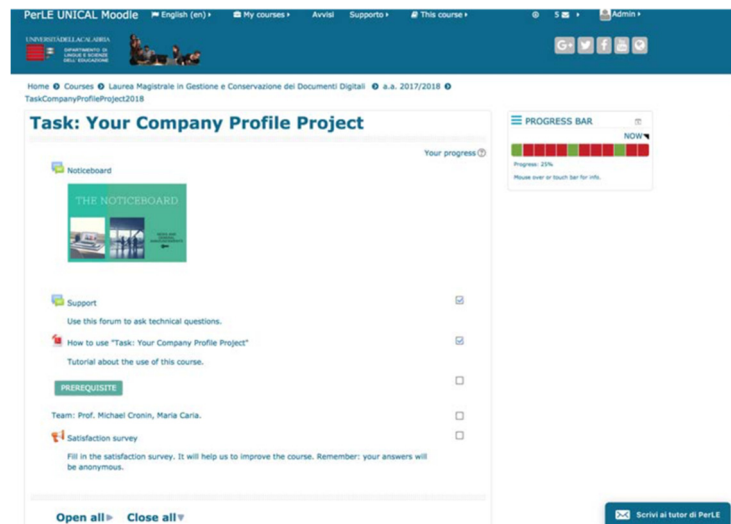
Figure 3 - Introductory page for "Your company profile project"

This initiative, apart from again including post-completion feedback for the course in the form of a satisfaction survey, saw the use of peer and self-evaluation for the project with a view to encouraging collaboration and a sense of agency for learners. Concomitant to these developments, consideration also needed to be given to the fact that this new postgraduate course exonerated students not resident in the Calabrian region from the obligation to attend lessons in person. This placed the onus on the teacher to ensure availability in digital form of a course that students could complete independently, even choosing not to participate either in person or during live online lessons. This reinforced an already perceived need for well-structured learning pathways such as the experimental ones described above, as well as for the provision of an array of useful resources in support of study and autonomous learning. In the case of the course for document management, such resources took the form in the Moodle of Glossaries (Language and Topic glossary, Document Management Glossary, Vocabulary glossary for this course), as well as specific sections devoted to English Language Learning Resources, Document Management, and a dedicated Reading Area. Assignments for the completion of course obligations valid for the examinations were included in the theme-based Modules and included the necessary instructions and explanations for their completion.

3 THE COVID-19 LOCKDOWN AND TEACHING EXCLUSIVELY ONLINE

With the advent of the Covid-19 health emergency, and the first lockdown in Italy in March 2020, the universities were obliged to go fully online to be able to guarantee delivery of courses. The University of Calabria proposed the use of the Microsoft Teams platform for all teaching, institutional meetings, and encounters with students. This necessary and radical shift proved to be quite a smooth one for teachers already using PerLE, not just from a technical point of view, but also as an opportunity to adopt new strategies in the management of courses in a fully online scenario. MS Teams provides functions that range from videoconferencing to chat, content sharing, and integration of applications. It was therefore possible and easy to integrate synchronous lesson-time use of content in the PerLE Moodle on the Teams platform in a dynamic and useful manner through screen-sharing and uploading of content which was already available in digital form in the PerLE Moodle. Nonetheless, in spite of the remarkable usefulness of the digital instruments that made it possible for education to continue during the health emergency, the affordances guaranteed by the technology also brought complications in terms of our relationship to the technology itself, and therefore contributed to a refashioning of our perspectives and interpretations of pedagogical strategies and possibilities.

3.1 Teams, PerLE, Moodle – problems and opportunities

The problem faced by language teachers, whose primary task is to create a learning environment based on the encouragement of productive communicative exchange and the development of certain skills and competencies, becomes singularly complicated by the need to conduct their business in a uniquely digital experience. The language teacher hopes and seeks to replicate as far as possible the communicative dynamics of the physical classroom, in which it is possible to organise and encourage numerous types of interpersonal collaboration. In the online classroom, managed in this instance via the Teams platform, a number of issues related to the use of the technology compromise to *a* considerable extent the forms of participation that count for so much in the traditional classroom because the dynamics of communicative opportunity change not just in mechanical terms but also in terms of perception and understanding. There is also the question, in this new dispensation, of how the teacher should manage the course experience in terms of realistic and achievable learning outcomes.

In practical terms, the Teams platform was useful and efficient for the management of functions such as meeting online, uploading of materials for synchronous classtime use, or fast download for convenience of use. The Teams General Channel was used for video conference lessons and 'Class Notebook' to insert, in the "read-only" space, suggestions and comments from the teacher, leaving students free to make autonomous use of their space for notes and sharing. In PerLE, the Moodle was used to host theme-based modules created both for use in class and for independent use by students interested in doing coursework or completing tasks and projects for assignments. The themes regarded general English and, importantly on this course, specific topics related to the profession of Document Management and the world of work. Project work was a core element of the course. In Teams, the Assignments function was employed for hand-in of all obligatory tasks, and project-based activities valid for access to the final examination, and all the materials, resources and instructions for these assignments were made available in the course modules in Moodle. Moodle content could be shared live on screen through the sharing function in Teams, so the modules could be employed seamlessly and served as a core element for lesson activities. Furthermore, the Moodle offered a series of tools such as 'book', diverse file formats, videos and activities which contributed to ensuring a various and interactive lesson experience.

Nonetheless, in spite of the reassuring practical ease of the integrated functions of Teams and Moodle in guaranteeing management of lesson delivery, it soon became evident that the usual dynamics of exchange and interpersonal communication were changed and compromised. Students manifested a disinclination to participate actively in the lessons, through timidity, uncertainty and solitude in the new and unusual learning situation. After the conclusion of the course, they were invited to participate in the usual Satisfaction Survey and on this occasion were also encouraged to participate in a Focus Group encounter to facilitate free expression of opinions and concerns. Questions and discussion were aimed at ascertaining student reactions to the digital technology solutions employed, course content and relevance, the teaching approach, affective response, general pros and cons, and suggestions for future improvement.

From these investigations, considerations emerged regarding, on the one hand, affect, (the emotional and personal perception of the student), and on the other the question of the didactic approach adopted. In terms of the former, results showed that while being relatively comfortable with the technology *per se*, students felt less at their ease in terms of the behavioral etiquette of lesson participation, commenting on what could be termed a general malaise of uncertainty, affecting even those students who would normally be quite extrovert and involved in lesson participation. In practical terms, this uncertainty often regarded the simple mechanics of intervention – activating the microphone, signaling a desire to speak, respecting turn-taking with peers, and this type of discomfort was clearly exacerbated by the requirement that they participate in a second language. Even though Teams offers a chat function, which the students tended to use outside of live lesson times, a decision taken at an early stage in the course to integrate the use of a dedicated WhatsApp group for use during lessons offered the opportunity to participate in chat, response, and class collaboration with some celerity and ease. This was adopted with alacrity and became an important tool for communication both with the teacher and among the students themselves. It should also be added that while students expressed a desire to return to 'normal' traditional style lesson experiences in class – there is an understandable desire to live a normal university life in terms of social contact and other activities - they also expressed appreciation for the use and efficacy of the digital instruments employed and expressed approval of the idea of continuing with Blended Learning solutions in the future. Importantly, students also indicated that they had difficulty in maintaining

concentration during lessons of a duration of two hours of which there were often several throughout the day. This clearly had strong implications in terms of cognitive load, personal satisfaction, and motivation to study.

As regards approaches to teaching and the management of lesson delivery online, as well as the general structuring of the course and its materials, several considerations can be made regarding the need to adapt in a manner that both exploits the facilitations offered by digital technology and tools while also demonstrating sensitivity to the way in which learning can take place. These will be discussed briefly below.

3.2   Teaching English online – adaptations and strategies

Transitioning to teaching fully online requires reimagining how to help students achieve the learning outcomes you have set for them under a different configuration of capabilities and constraints. [6]

In the present case, a clearly themed module-based course structure with a focus on topics pertinent to the field of study, while it undoubtedly stands as a reassuring and solid point of reference for students, does not automatically imply that execution of learning tasks will go smoothly or productively, notwithstanding the useful affordances of the technology:

…using technology to "learn by doing" may not always be readily obvious or transparent; students must be trained how to use technology, even if the overall task is understandable. In some cases, it may not be possible to port directly to the technology- mediated learning environment every task that works well in the traditional face-to-face format [7]

There is a strong implication here that not only is it necessary for the teacher to provide well-prepared instruction as to the execution of tasks mediated through digital means, but that it is also important that they achieve a sensitively judged balance in their choices regarding the execution of course goals and that lessons come to form part of a holistic approach to the entire learning experience that takes account of shifts in perception caused by the employment of technology. That is, that the students be supported adequately in the use of the technology but also that the teaching approach be aligned sensitively to the implications and consequences of such use. This approach, in our view, requires a combination of paced lesson input, mediated through a measured use of synchronous and asynchronous engagement.

In technology-based learning (TBL) much critical attention has been paid to the complex issue of cognitive load and the potential risks posed by the apparently attractive "affordances" in the use of digital instruments, such as for example the phenomenon of "split attention" and "information transiency" and the uncertainties of navigating the complicated waters of extraneous and intrinsic cognitive load [8] It seems feasible to expect, however, that some useful traction can be gained by guaranteeing learners the opportunity, in an informed and well guided manner (thanks to teacher attention and input) to take control of the accomplishment of tasks and activities and all to the better if this is done in collaboration with peers.

On the one hand, students may well feel that they are part of a learning community with clearly delineated institutional obligations and learning goals, supported by course materials that are well organized and structured for use. On the other, however, they may feel isolated and communicatively at a disadvantage or disoriented for a series of reasons related to issues of online behavioral etiquette and also to difficulties in appropriate comprehension of the nature of the proposed learning agenda. In our case therefore, the experience of managing this course online has led to adaptations aimed at diminishing such discerned negative consequences in terms of affect and understanding. Students were encouraged to participate in text chat exchanges and spoken response with the teacher only as they pleased. Clear rules for the method of indicating intention to intervene and turn-taking helped to remove uncertainty and the consequent passivity notable at the beginning of the course.

To confer a greater sense of agency and control in the management of their learning and to lessen a sense of pressure and disorientation, it was decided that the effective carrying out of tasks be largely shifted outside of lesson time which could be more productively devoted to instructional input and language practice aimed at preparing them for their tasks. In the case of reading activities, for example, students are given adequate time to engage with the material and to confer with their peers before participating in feedback with the teacher as a group concern. One of the important aspects of the course regarded the development of the skill of giving PowerPoints presentations. Instruction for the task was sequenced and paced using a principle of scaffolding and continuous feedback before students broke up into pairs and groups to prepare their presentations on topics related to Document Management for

delivery online as part of a group event with peer and self-evaluation. The idea here is to encourage community collaboration as a counter to digital isolation during lessons and activities, to open up participation in critical evaluation and to develop a sense of common purpose and equality.

Briefly to conclude, we can affirm that our experience indicates that language teachers managing either a fully online experience or seeking to establish how to combine Blended Learning approaches on courses, while exploiting the "affordances" guaranteed by technology, must also respond sensitively to the way in which such complex dynamics influence how learning happens. Well-structured course materials accompanied by carefully planned instructional input will encourage motivation and clarity regarding course aims. Negative manifestations in terms of affect can be countered by using technological means to resolve problems of perceived pressure in communication among peers and with the teacher. The teacher should act as a constant available presence for support and feedback both online and offline. Lessons online should be a rich and various but not over taxing experience, often characterized by micro elements of input, activity and collaboration which build towards the completion of tasks which can be developed and completed offline in a self-paced and autonomous manner by learners. As we proceed, the type of holistic approach mentioned above should become more refined as we continue to experiment with the means we now have at our disposal in our search for useful "cues" to stimulate self-regulated learning [9].

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