Immersive Creative Classrooms within the Zones of Educational Priorities in Greek Primary Schools

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Abstract. Nowadays, ICT and Social Media utilization in primary schools becoming more challenging provided that the educators aiming at not only transferring knowledge but also at developing shared meaning and common skills within creative classrooms (CCR). In this way both the teachers and the students can work on and share experiences to support co-creativity and idea generation also having wide presence in related educational communities. CCR refer to innovative learning environments that fully embed the potential of ICT to innovate learning and teaching practices. Such environments are proposed to bring forward 'online presence' on an interface for shared knowledge to occur by enhancing trust and reliability. The teachers of Art and Theatre subjects at the 152 Primary School in Athens, Greece supported the Zones of Educational Priorities the school was chosen for. In the case study presented, presence and co-creativity are developed under CCR umbrella with the use of social media and Web 2.0 tools as well as best practices are shared within the wider Greek teachers' community network.

Keywords: Online Presence, Creative Classrooms, Immersive Experience, Zones of Educational Priorities, Social Media, Web 2.0 Tools.

1 Introduction

Greece is in the middle of a severe economic crisis, which is also related to an educational crisis. Education is generally acknowledged as one of the crucial components of personal and professional development. The integration of Information and Communication Technology (ICT) in education as well as the social and collaborative nature of the Internet provided another medium for communication and training; however, despite the advantages, the crisis exists. In his foreword for the United Nations Educational, Scientific and Cultural Organization [1], Daniels said that within a short time ICT has become one of the basic building blocks of the modern society. Furthermore, the current shift occurring in the Web from a static content environment where end users are the recipients of information—defined as Web 1.0—to one where they are active content creators—defined as Web 2.0—can be

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described as a transition to a more distributed, participatory, and collaborative environment [2]. Web 2.0 is a platform where "knowledge-working is no longer thought of as the gathering and accumulation of facts, but rather, the riding of waves in a dynamic environment" [3]. To Berners-Lee [4], the Web is not only a technological tool but also a social phenomenon that enables collaboration and creativity.

ICT is the backbone of the knowledge economy and has been recognised as an effective tool for promoting economic growth and development [5]. Organisations, educational institutions and business have been investing in the use of ICT in Education, or in what ESRC now calls Technology Enhanced Learning (TEL). Nevertheless, teachers' education has been severely criticized on the grounds of both quantity and quality [6]. Economic advantage will accrue to a population that acquires competencies in processing information into knowledge and applying it in work and everyday life. These competencies are not only related to using the devices but also working on procedures that give access to information and skilfully transforming information into knowledge. As this is the task of the educator, educational systems will become a national resource as important as the traditional factors of production-land, labour, and capital. This in turn would cause educators to become more important, their productivity and their wages should increase, but they can also expect the nature of their jobs to change with a great deal of specialization.

In Greece, teachers' training is mainly conducted within the universities pedagogical departments; also the Greek National reform Programme suggested the introduction of Pedagogical and Teaching Certificate for future teachers, following the PGCE (Postgraduate Certificate in Education) British example. Implementation of the integrated in-service training programme was suggested for the "New School". It is estimated that the number of those who are to be trained, until December 2013, will rise to approximately 150,000. Greek in-service teachers' training at the moment is limited to level B offered to the ones who have attended courses outside the school (KEK). Further training has stopped from any other organisation and only the school advisors support the active teachers in their work. This gap was filled within the ZEP by constant internal training focused on teachers' problems and actual needs.

In regard to the educational staff working at the 44th and 152nd Primary Schools of Athens, and the 110th Nursery School of Athens, there are 43 teachers, 7 nursery school teachers, 2 educational psychologists, 1 social worker and scientific staff occasionally visiting the schools; these are, one individual responsible for ZEP, one researcher on learning difficulties, a schools management consultant, the school advisor of the area and the ZEP project manager.

1.1 Online Social Awareness and Presence

Web 2.0 tools and social media offered the glue to stick together the CCR characteristics into place. The authors created a unique for a Greek school multiple uses of the social media and tools available to create presence in the Greek educational world and communities. The web 2.0 platforms WordPress, Slideshare, Facebook and YouTube, the Greek educators' platform and ZEP Community of

Practice within the Greek School Network were utilized so to connect, exchange and synthesize knowledge and experiences as well as present the project in the outer world. A new webpage was developed with Joomla (http://152dim-athin.att.sch.gr) used as an official and more 'permanent' way to link all other tools and communities together. Social media tools keep people constantly informed and connected whereas the project outcomes and best practices are presented interactively with diverse audiences, sharing our views, news and opinions. The blog http://blogs.sch.gr/152dimat/ was used as an online diary facilitating users to interact; it is directly connected to the Community of Practice developed on the Greek School Network platform (http://blogs.sch.gr/groups/zep-patisiwn-152odim-athinwn/). Social media tools provide a great, and necessary, way to increase communication and engagement with the Greek educational audiences. Such communication and engagement facilitate school's presence by making efforts and project outcomes known to students, parents and other stakeholders. Such strategy includes the right messages with little perseverance towards targets also merging formal with informal learning and exchange of best practices. School self-organisation and self-connected was possible as the needed educational staff was doubled due to the participation to the specific ZEP also offering flexibility in the timetable and decision making. According to [7], what a learner has learned is displayed when they talk to other learners. Therefore, the importance of social awareness is evident is learning theories related to social interaction and social organization. We now consider not only information and knowledge transmission but also social and dialogical interactions; social learning theories revolve around such meaning and thus understanding created through discussions. Learning derives from social interactions; an individual's cognitive structures and processes can be made apparent by their interaction with others [8].

According to [9] social presence is the degree of salience of the other person in a mediated communication and the consequent salience of their interpersonal interactions. Other studies referred to the concepts of immediacy as psychological distance [10]) and intimacy as the interpretation of the degree of interpersonal interactions [11]. In online conversations social presence awareness has been defined as the degree by which a person was perceived as 'real' [12]. Presence is concerned with self-representation, self-locality, self-organisation and self-assessment. Co-presence is concerned with group-representation, group-locality, group-organisation and group-assessment. If both can be facilitated via Web 2.0 tools and the use of Social Media the learners have the opportunity to observe themselves and to learn and reflect on their behaviour with other group members.

2 CCR within ZEP at the 152nd Athens Primary School

Creative Classrooms (CCR) refer to innovative learning environments that fully embed the potential of ICT to innovate learning and teaching practices [13]. The policy of Zones of Educational Priorities (ZEP) constitutes a strategic choice of certain European states in order to fight functional illiteracy and school failure. The

importance and the contribution of this policy in the reduction of school failure are underlined in reports of experts of the Organization for Economic Co-operation and Development (OECD), European Union.

As the 152nd Primary School of Athens was chosen for ZEP, the Headmaster of the School also considered implementing CCR within ZEP. The IT teacher collaborated with the Fine Arts and Theatre teachers so facilitate the project implementation by utilizing ICT as the collaboration medium as well as bringing the teachers' together as the information and collaboration human hub. The teachers worked in all kinds of couples or in triads, however, the ICT teachers was the catalyst for each one of them. According to [13], innovating in Education and Training (E&T) is a key priority in several flagships of the Europe 2020 Strategy: for example the Agenda for New Skills and Jobs, Youth on the Move, the Digital Agenda and the Innovation Agenda. CCR require innovative pedagogical practices in detail at organizational, curricular, and assessment levels, but also the systemic capability (at micro, meso and macro level) which involves the whole schools community practices on a larger scale. Such implementation is directly associated to content and curricula, assessment, learning practices, teaching practices, organization, leadership and values, connectedness, and infrastructure.

Zones of Educational Priorities (ZEP) were initially implemented in the UK, and elsewhere in the English-speaking world such as New Zealand, South Africa, Australia and particularly successfully in France. ZEP are targeted plans per geographical region for students living in deprived areas. ZEP deal with school failure and consequently early school leaving and promote social inclusion. Zones of Educational Priorities are set up by Ministerial Decisions. School units of primary and secondary education, operating in regions with a low total educational indicator, with a high rate in early school leaving, with a low rate in tertiary education, as well as with low social/economic indicators, namely a low synthetic indicator of prosperity and growth and an indicator of high poverty risk, are becoming ZEP parts.

The objective of ZEP is the equal integration of all pupils into the school system through the operation of support actions about the strengthening of educational outcomes, such as mainly the operation of reception classes, classes of remedial teaching, summer school classes and classes where pupils' mother tongue is taught. The project was implemented in the school year 2010-2011 in its pilot phase through three ZEP in the region of Attica where Athens is, including approximately 20 schools of all levels (ISCED 0, ISCED 1, ISCED 2) and with a follow-up and assessment plan of the action. The scope of the action is that the services offered by the ZEP meet the special educational demands of the local student population.

ZEP purpose is to provide assistance to students who need help within the educational process for equal opportunities for all. The special educational needs of some students are the result of either learning difficulties or social inequalities. Special educational activities for students with learning difficulties have been designed and implemented in many educational systems with the help of psychology and special education. The rapid rise of capitalism in some cases caused the emergence of a new economic and social class; besides the common features of poverty, unemployment, low living standards for many families, small houses, etc

there is also another common element: the families are concentrated in areas where they can survive financially. The houses in such areas are small and old, near industrial areas or ports with underdeveloped infrastructure, minimum open spaces, sometimes dodgy and deprived areas.

As such, this creates a new reality for educational policy designers since they have to deal with an educational need regarding individual students, usually a few in each school, but within entire districts. These students' characteristics from deprived areas are: low self-esteem, tendency towards crime, low academic performance particularly in language and mathematics, frequent absence from the school, lack of robust parental responsibility, inability to support learning difficulties at home, also considering the weak financial situation, poor personal health care, poor nutrition, etc. It is therefore clear that such problems are highly social and have a direct impact on the students' school life. Without a radical intervention from outside, these characteristics create a self-sustaining vicious circle regenerated in these deprived areas, supported by them and simultaneously contribute to their perpetuation.

Zones of Educational Priority are an initiative in which the education system is trying to eliminate educational inequalities resulting from social inequalities via specific educational activities. As such, one target is to provide all students of the region equal opportunities in higher education and the labour market.

All citizens that belong to ZEP areas constantly receive social and educational interventions and welfare benefits; however, such discrimination only enhances it and prevents their active participation in the Greek society. Their basic individual human rights are already compromised. As such, an expensive educational intervention is f no meaning to the student coming from a family with unemployed parents; s/he will return into a packed family room with no power and no heating, quietness to read, food to eat or clothes to change, and even a vision for hope. Such intervention should take the form of thunderstorms and has to be multipurpose, discreet and sudden.

3 Social Media and Web 2.0 Tools Utilisation within CCR

The Headmaster of the 152nd Primary School of Athens together with the school teachers decided to adopt the CCR characteristics within ZEP. The teachers of Art and Theatre subjects at the 152nd Primary School in Athens, Greece supported ZEP is implementing based on the British examples. These teachers along with the classroom teacher work together in the same classroom environment using ICT to merge and converge the educational activities from different subjects. In this way not only the students do benefit from the technology enhanced learning activities but also the teachers themselves participate in an in-service training on the knowledge, skills and competencies required to work in such creative class-room activities. In the case study presented, virtual museums visits and videoconferences along with associated experiences were mapped in Inspiration to support students' collaborative writing for an eTwinning program.

The main CCR characteristics and reference parameters (building blocks) were incorporated as interface and tools characteristics and uses as follows:

Content and Curricula - Innovating timetables. Innovative, flexible and tailor-made timetable was used within the official curriculum borders as well as the books adjusted to the curriculum. However, the ICT use offered the new tools especially for external collaboration with other students and teachers via the eTwinning program for sharing timetables and facilitate time management. It offered a boost to teachers' confidence as well despite the economic, professional and social teachers' devaluation with a direct impact on their teaching performance with absence of vision. This project supported 90-100-150 paid teachers' working hours; this is unlikely to continue, and almost impossible to sustain good practice and extend costs.

Assessment. Innovative ICT-enabled assessment approaches can better capture 21st century skills implemented in the use of social media and Web 2.0 tools. However, sustainable and innovative formative assessment in the school everyday life is most of the times without particular practical use due to the absence of initial coherency.

Learning practices across disciplines / subjects. In social media and Web 2.0 tools implemented within CCR, a variety of learning materials were organized thematically to foster "horizontal connectedness" and enable learners to analyze and understand things by multiple perspectives. These tools offered innovative ways to retrieve information from different domains and to create rich multimodal content. Also, everyone was free to try and fail, encouraged and experiment; such philosophy has radically changed the cross-curriculum approaches as until the project implementation, these approaches were difficult to be realized.

As the ICT, Arts and Theatre Education teachers were co-teaching together with the normal classes teachers, some interesting insights were revealed: a) teachers are disassociated to other teachers' subjects due to deeply rooted attitudes and lack of solid and substantial in-service training b) teachers for specialized subjects do not come from pedagogical departments, and thus, pedagogical training is absent; also, there are not familiar with the reality of primary school everyday life. Furthermore, some teachers come from secondary education carrying also false concepts about primary education. As a result, they do not realize, and as such, inspire the students that are in an important subject as they view it as 'playtime'. This is in contradiction to their CCR related teaching practice.

Teaching practices. CCR require that teachers effectively play new roles as mentors, orchestrators, and facilitators of learning and act as role models of creativity and innovation. Therefore, the skill sets of professional teachers should shift from subject knowledge towards expertise in pedagogy and orchestration of CCR management strategies towards creative learning. Innovative teaching practices should be supported by updated, targeted, and inspiring initial education and in-service training (Kampylis et al., 2013). As such, the teachers for special subjects such as ICT, Arts and Theatre education acquire the missing pedagogical experience, learn new

strategies, and overall, reconsider the classroom management strategies. Unfortunately, the teachers who gained these experiences do not stay in the school for another year; this is due to different work arrangements, teachers hired by the hour, seconded teachers etc. Consequently, there is knowledge, skills, competence and experience diffused in other schools; however, because of lack of sustainability, everything has to start from scratch again every year in the 152nd Primary School.

Learning-by-creating. CCR actively engage the students as content creators in order to nurture creative imagination, innovation attitude and authentic learning in real contexts. ICT offered the means for working together in teams, co-designing, co-creating, and communicating the actual learner-generated content via Web 2.0 tools and media. Such great and added value offered by new technologies and art classes as well as the important contribution to increase the cultural and therefore human capital via students' participation in culture products. which can these courses serve in school there are groups of teachers, students, there are communities that are involved in a project and act drafted by design, common goals and collaborative practices.

Facilitating peer-to-peer collaboration: Social media and Web 2.0 tools in CCR constantly encourage peer collaboration so students learn to think both independently and with others, enabling them to consider a plurality of perspectives working on synchronous and asynchronous online collaboration to enhance co-creative learning in teams.

Organization. This dimension captures the organisational practices in CCR, and refers to the macro, meso and micro levels, implying a progressive breadth and depth of action to meet local circumstances and needs. This requires a broader involvement with the local communities and authorities; however, the communication is always one way, from the school towards them making great efforts to disseminate the extracted best practices on a local, regional, national and European level.

Leadership and values. CCR currently operate within the ZEP and by definition the work in located in situ within a context of educational structures and values that strongly influence learning objectives and pedagogies, promote equity and guarantee access to quality education for all supporting and facilitating all teachers' initiatives. Social media and Web 2.0 tools are used in a peripheral way extract information and opinions about decision made about school activities.

Connectedness. The pervasive and participatory cultures in anchored in the social and emotional factors that profoundly affect the relationships among school members have a significant impact on their level of engagement and motivation especially within a ZEP. Social media and Web 2.0 tools in CCR offered new possibilities for students to connect with multiple other actors, teachers to interrelate their subjects and exchange experiences and best practices. This is feasible by everyone's conscious and continuous involvement creating and maintaining bonds between teachers and students engaging them in current and future projects.

Infrastructure: For the Social media and Web 2.0 tools in CCR implementation within the ZEP, a dynamic ICT infrastructure is there to support the needed information and experience exchange as well as providing the creative activities medium and platform to improve and accelerate innovative teaching and creative learning as well as disseminate best practices and projects outcomes and results.

As a result, such multi-faceted collaboration promoted the use of computers in ICT-enabled innovation for learning for the teachers' in-service training developing Social media, Web 2.0 and CCR associated knowledge skills and competencies as well as pedagogical approaches and evaluation techniques related to, to name a few: opening up to ICT-enabled innovation and co-creation with the use of Social media and Web 2.0 tools in art and theatre along with the everyday educational school subjects; utilizing available technologies on idea generation and sharing on collaborative writing; working on communication using diverse media to exchange ideas, experiences and best practices; enhancing extreme collaboration between supposedly irrelevant subjects in cross-curriculum approaches; and supporting mutual respect, control as well as taking responsibility in identifying and supporting each other's gaps within the implementation process for collaborative writing.

4 Immersive Factors and Design Attributes into CCR

Immersive eXperience (iX) [14], as with User Experience (UX), is the creation of immediate, deeply immersive, meaningful and memorable learning experience within the previously suggested CCRs. There are specific immersive factors, conditions and associated iX Design attributes that enable and enhance the user's engagement and activity on platforms that require such actions.

Immersive Factors

1. Clear goals as challenge level and skill high level
2. Concentration and focused attention
3. Loss of feeling
4. Distorted sense of time
5. Direct and immediate feedback
6. Balance between ability level and challenge
7. Sense of personal control over the situation or activity
8. The activity is intrinsically rewarding, so there is an effortlessness of action
9. Lack of awareness of bodily needs
10. Absorption into the activity.

iX 10 Design Attributes

1. Common purpose
2. Powerful Online Presence and Co-Presence
3. Engagement
4. Virtual Collaboration

5. Zone of Proximal Flow (ZPF)
6. Connectedness and Inter-Connectedness
7. Engagement in Compelling & Memorable Activities
8. Sense of Belonging

5 Discussion, Conclusion and Future Work

In-service training within schools can be individualised and self-paced; there are more opportunities to access diverse learning resources; learning is based on activities and experience (active and experiential learning) within groups (collaborative learning); time and cost are less because of the in-service manner and the use of the electronic form of resources; and communication is nonlinear. Nevertheless, there are several obstacles: institutional, instructional, technical, and personal. Consequently, ICT utilization in primary schools depends, among other reasons, upon the levels of teachers' expertise in the ICT use with the aim of Immersive Experience engaging Web tools and Social Media for educational purposes. Facing the 2020 challenge for the whole of Europe, educators are aiming at not only transferring knowledge but also at developing creative classrooms (CCR) so for the students to work on and share immersive experiences towards co-creativity and idea generation.

The results were impressive as with the theater education (dramatizations in dialogues, role plays, recitations and vocal exercises, emotional control - control behaviour) and with visual artists and musicians (construction artworks, maquettes, posters, collective works, familiarization with new materials, tools and thus, possibilities, new techniques, sand art, graffiti, exhibitions, choirs, concerts, attend concerts, acquaintance with musical instruments and types of music); all facilitated by ICT infrastructure.

Other CCR case studies [15] report results reports that the use of ICT empowered the development of learner's soft skills, such as problem solving and communication with real-world context and actors, and the fostering of multiple modes of thinking through a variety of learning materials. Such innovative approaches impact not only on learning practices, but also on content and curricula, connectedness, leadership and values, teaching practices, and infrastructure.

The use of Web 2.0 tools and Social Media within the ICT infrastructure presupposes that the learning practices need to widen up across disciplines / subjects and thus, the teaching approaches were adjusted to such customization. Innovative learning environments enable learning by creating and facilitate peer-to-peer collaboration in multiple and diverse ways as with the ICT and Arts teachers in our school. The organization was also supported, including the flexible timetable compared to the other Greek schools, indicating a distributed leadership approach rather than a top down decision making. Such approaches enabled inter-connectedness and a sense of belonging to the school community of practice, working towards specific targets and goals. The project funding also supported the school to acquire a solid and functional ICT infrastructure that all of the above could not be realized without it. Web 2.0 tools and Social Media supported collaboration,

connectedness and internal school innovation so to modernize learning and teaching practices. Lastly, such unique implementation helped in the extraction of best practices and shedding light to innovative and key elements that are widely implemented in the ZEP Greek schools. The results from the project now used as best practice within all schools in the Greek Educational Action Zone. Implications revolve around the extraction of best practices while using the discussions to explain, evaluate and further discover new uses and re-uses of existing material and approaches.

Our proposition to integrate the Immersive factors and design attributes within the learning platforms, social media and Web 2.0 tools can offer memorable experiences for both the teachers and the students, building sustainable learning communities towards lifelong learning sustainability. Our next research work will be focused on the design, implementation and evaluation of such implementation within Immersive environments such as the use of Serious Games and augmented reality and in-depth analysis so to provide a more coherent study, more accurate and evidence-based.

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