CONCORSO PUBBLICO, PER TITOLI ED ESAMI, A N. 1 POSTO DI CATEGORIA EP, POSIZIONE ECONOMICA EP1, AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, PER LE ESIGENZE DEL CENTRO DI SERVIZIO DI ATENEO FEDERICA WEBLEARNING – CENTRO DI ATENEO PER L'INNOVAZIONE, LA SPERIMENTAZIONE E LA DIFFUSIONE DELLA DIDATTICA MULTIMEDIALE DELL'UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II (COD. RIF. 2007)

QUESITI ESTRATTI ALLA PROVA ORALE DEL 29 SETTEMBRE 2020

Il candidato illustri un sistema di gestione e monitoraggio di un gruppo di lavoro relativo ad un progetto europeo regionale destinato alla formazione e all'orientamento universitario, con riferimento ad un software per la gestione dei flussi di produzione.

Il candidato progetti la comunicazione istituzionale relativa al lancio di un programma di Alta formazione online secondo i principi di congruità, coerenza e trasparenza.

Si individuino le strategie di attuazione della comunicazione istituzionale per un progetto speciale per l'integrazione tra formazione multimediale e percorsi lavorativi.

Si illustrino i passi utili per impostare e modificare una immagine attraverso il software di grafica-visuale Adobe Photoshop.

Il candidato legga e traduca dall'inglese all'italiano la pagina 5 (ALLEGATA ALLA PRESENTE SCHEDA)del testo di Calise, M., Kloos, C. D., Reich, J., Ruiperez-Valiente, J. A., e Wirsing, M. (Eds.). (2019). Digital Education: At the MOOC Crossroads Where the Interests of Academia and Business Converge, Cham, Springer.

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2.2 Self-regulated Learning in MOOCs

Initially, self-regulated learning (SRL) was studied in traditional educational settings, where the student and teacher were in the same physical location and could establish personal contact. Later on, research on SRL has continued in online learning environments, such as MOOCs.

However, the differences between MOOCs and traditional educational settings create new challenges, mainly due to the heterogeneity and massiveness of the participants. Additionally, learners are expected to self-regulate their learning, although prior works have shown that many MOOC participants lack the needed skills. Therefore, there is a need for research works which carry out interventions to support self-regulation in MOOC participants.

Some authors have developed MOOC platforms to encourage learners to be active in their learning. For example, eLDa platform allows learners to choose the delivery mode between the *instructor-led* mode (with a pre-recommended order of lessons) and the *self-directed* mode (in which the learner freely decides which learning path to take) [12]. Moreover, elements to improve participants' motivation and self-regulation are incorporated, such as lesson prerequisites, private messaging, forums, and progress maps [13]. In a pilot study conducted in 2015 [14], the participants of a programming MOOC in eLDa platform were offered a survey regarding their preferences in MOOCs. The results were that the participants mostly preferred short MOOCs, with short lecture videos, as they intended to spend less than an hour per day in the course. Finally, regarding the type of online course delivery, the answer distribution was: 15.5% preferred collaborative learning, 15.5% preferred instructor-led learning; 46% preferred interactive learning, and 23% preferred self-directed learning. Therefore, learners seem to prefer an adaptative approach, followed by the self-directed mode.

Other tools found in the literature to support SRL in MOOCs are focused on specific instructional elements, such as videos. This is the case of Video-Mapper, which is presented as a "video annotation tool" [15]. Learners can add annotations to specific time points in MOOC videos, as well as reading the annotations of the other enrolees. Thus, this tool aims to foster collaboration, discussion and interaction with the content of the MOOC videos. An evaluation of the tool with real MOOC participants showed its effectiveness and usability. Moreover, learners' engagement is increased through the visualisations, as they can have an appealing overview of the lectures. Another constructive feature is the option to link questions to a specific time point in a video. However, it is difficult for a learner to keep track of his activities or his peers'. Video-Mapper helps learners to organise their learning path with the map structure of the lectures. Some SRL strategies this tool is intended to support are goal-setting and strategic planning. Enrolees can analyse what they have already done, and what they want to do according to their personal objectives. Moreover, the annotations are shared by all the participants, which helps to create a sense of community and fosters motivation and help-seeking.

Other authors focus on one SRL phase, such as NoteMyProgress [16]. This tool was developed to support the SRL strategies of the performance phase of enrolees in Coursera MOOCs. Specifically, the implemented and evaluated tool focuses on task strategies (note-taking) and time management. NoteMyProgress is composed of two

Nell'ambito della progettazione di un corso di laurea erogato in modalità blended, il candidato illustri le modalità per la gestione e il monitoraggio di gruppi di lavoro ad esso associato anche attraverso software per la gestione dei flussi di produzione.

Il candidato illustri le modalità di comunicazione istituzionale relative ad una piattaforma di erogazione MOOC di rilevanza internazionale nel quadro delle attività procedurali della programmazione europea.

Il candidato progetti e programmi la produzione e la comunicazione interna ed esterna per pacchetti professionalizzanti di formazione online.

Si illustrino le principali funzionalità del software di grafica visuale Adobe InDesign.

Il candidato legga e traduca dall'inglese all'italiano la pagina 7 (ALLEGATA ALLA PRESENTE SCHEDA) del testo di Calise, M., Kloos, C. D., Reich, J., Ruiperez-Valiente, J. A., e Wirsing, M. (Eds.). (2019). Digital Education: At the MOOC Crossroads Where the Interests of Academia and Business Converge, Cham, Springer.

- Provide some *advices* to the learners in order to improve their SRL skills as well as inspirational *quotes* to increase their motivation.
- Provide an *intuitive and appealing interface*. Designing a simple and user-friendly interface is considered important to achieve high usability and learners' engagement with the tool.

4 Design

4.1 Design Decisions

After determining the SRL strategies to support, the specific type of tool was chosen with the constraint of focusing on edX platform, as this was the institutional MOOC platform. In fact, other intervention types apart from tools were not suitable for our work. On the one hand, path recommendations or interventions that are embedded in the MOOC platform cannot be implemented in edX platform. On the other hand, study groups are not considered the best option in MOOC environments due to location constraints (e.g., Guo and Reinecke identified 196 origin countries among enrolees of 4 different MOOCs [24]).

Therefore, the initial designing step was selecting between a computer or mobilebased tool. Currently, the edX mobile application allows participants to watch videos and complete exercises. However, this application does not yet allow completing evaluations. Thus, enrolees who intend to complete the MOOC should access the course through a computer, at least, to take the exams. Additionally, a browser should be used when accessing the course. According to Statcounter[1], Google Chrome browser has a worldwide market share of more than 50% during 2017 and 2018. Consequently, the idea of a computer-based tool is concretised in the development of a Google Chrome extension (also called plug-in) to be designed according to the requirements summarised in the previous section. This tool, named MOOCnager, aims to support MOOC participants in their development of their SRL skills.

Finally, the last design decision was choosing a suitable database to store and access the information generated by the enrolees' usage of the plug-in. A local database was discarded so that the information of a user was not constrained to the device he is accessing the plug-in with. In other words, the intended behaviour is that the information of a user is accessible, after logging in, regardless of the device. Additionally, a non-relational database (NoSQL) was preferred because possible future changes in the stored information do not imply major database modifications.

Per ordine del Presidente
Il segretario
f.to Claudia Russo