THE USE OF VIDEO NARRATION TO DEVELOP SOFT SKILLS IN INITIAL TEACHER TRAINING

L'USO DELLA VIDEO NARRAZIONE PER SVILUPPARE SOFT
SKILL NELLA FORMAZIONE INIZIALE DEGLI INSEGNANTI

Marina De Rossi and Cinzia Ferranti*

University of Padova, Padova, Italy, marina.derossi@unipd.it, cinzia.ferranti@unipd.it*

*corresponding author

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ABSTRACT The narrative dimension allows us to understand reality and to organize knowledge in a hermeneutical and open way. It is also able to generate reflective learning and to stimulate skills that are not necessarily subject related. When narration turns into video narration, video production and artefact building processes can promote the development of soft skills, to be improved during the academic path and put into practice in future professional actions. This article presents the main results of an empirical study of a blended/hybrid digital video-narrative laboratory proposed to 132 university students doing undergraduate initial teacher training, extrapolated from a wider mix-method research study conducted at the university level. The study currently has the limitations of focusing on a single teaching area, but the encouraging results could be a stimulus to expand research on the use of video across the entire teacher training curriculum.

KEYWORDS Video Narration; Soft Skills; Higher Education; Teacher Education.

SOMMARIO La dimensione narrativa permette di comprendere la realtà e di organizzare la conoscenza in maniera ermeneutica e aperta. È anche in grado di generare un apprendimento riflessivo e di stimolare abilità non necessariamente disciplinari. Quando la narrazione si trasforma in video narrazione, la produzione video e i processi di costruzione dell'artefatto possono promuovere lo sviluppo di soft skill, da migliorare durante il percorso accademico e mettere in gioco nelle future azioni professionali. L'articolo presenta i principali risultati di uno studio empirico relativo ad un laboratorio blended/ibrido di video-narrazione digitale proposto a 132

studenti universitari, futuri insegnanti in formazione iniziale, estrapolato da una ricerca mix-method più ampia, promossa a livello di Ateneo. Lo studio attualmente presenta i limiti di un unico insegnamento coinvolto, ma gli incoraggianti risultati potrebbero essere uno stimolo per ampliare la ricerca sull'uso del video nell'intero curricolo della formazione degli insegnanti.

PAROLE CHIAVE Video Narrazione; Soft Skills; Didattica Universitaria; Formazione Iniziale degli Insegnanti.

1. INNOVATING TEACHER TRAINING THROUGH NARRATIVE METHODOLOGIES INTEGRATED WITH THE USE OF VIDEO

One of the main challenges of initial teacher training is to provide effective teaching practices to help build skills in the many areas that characterize the complexities of teaching work (Perrenoud, 2003). Among the different competencies that need to be developed, digital competence is one of the most complex because it also includes knowledge of disciplinary contents and methodological knowledge (European Commission's Science and Knowledge Service, 2017).

Recent studies state that the spread of ICT use in schools presents many opportunities, but also risks being useless if teachers are not properly trained to design the use of ICT in teaching in a critical and targeted way (Rivoltella, 2012; Ranieri & Manca, 2013). For example, the research study "Students, Computers and Learning" (OECD, 2015) confirms that the massive use of ICT is not sufficient to improve pupils' learning if the process is not supported by the teacher's methodological-didactic skills. Consequently, the initial training of teachers should not have as its main objective the acquisition of knowledge about or use of technological tools, but above all the ability to adopt ICT suitably in accordance with the educational and training objectives. Moreover, for future teachers, it is also very important to learn to evaluate when and how ICT is useful for building meaningful learning (Vaiola, 2016).

Currently, there are many possibilities offered by 2.0 technology learning environments that are designed as virtual classrooms. There are widespread technological resources that are based on affordances that actively engage students, facilitate material sharing and foster knowledge co-construction collaboratively. All this is also facilitated by the potential offered by mobile devices, now widespread at all levels, to design activities and work in continuity within and outside school settings, between formal and informal learning contexts (Traxler, 2009; Sung, Chang, & Liu, 2016).

For all these reasons teachers must not only be trained in technical skills (hard skills) but also develop a creative, reflective and collaborative approach to the use of technology (soft skills).

The recent perspectives of scientific research in this field suggest that the availability of the latest generation of ICT has the potential to create technological innovation only if the action of educational design is related to the methodological innovation of content (Angeli, 2015; De Rossi, 2017; De Rossi & Trevisan, 2018).

Below we will try to identify the possible connections between methodological approaches and the use of ICT for initial teacher training, focusing on a particularly innovative aspect: the narrative methodological approach (De Rossi & Petrucco, 2013).

Before deepening the didactic aspects, we will outline the theoretical principles and the educational potential of storytelling about multiple and complex functions: communication, sharing, learning.

It is agreed that the reprocessing of information tends to be spontaneously constructed in the form of stories to describe, interpret and give meaning to experiences (Bruner, 1993; Schank, 1990, 2013; Restak, 2004). The narrative is considered "an interpretative and cognitive device" which is also very powerful in terms of memory (Kaneklin & Scaratti, 1998).

Bruner's studies (1993) proposed the distinction between paradigmatic thinking (scientific structure) and narrative thinking (cause-effect structure), which are complementary in knowledge development processes. Paradigmatic thinking is abstract and typical of logic and analysis, while narrative thinking is how human beings employ communicative interaction processes to organize and manage knowledge of the world. For some decades now, numerous studies in the psycho-pedagogical area have been analysing the impact of technological-based narrative (production and use of video, including in the form of digital storytelling) integrated into teaching/learning processes (McDrury & Alterio, 2003; Dettori, Giannetti, Paiva, & Vaz, 2006; Petrucco & De Rossi, 2009; De Rossi & Restiglian 2019).

In particular, research into the use of video narrations for the transposition of contents and the contextualization of knowledge has highlighted strategic affordances for teaching purposes and for the construction of the curriculum (Schank, 2013; Brame, 2016).

However, there are still aspects to be explored regarding how teachers can use video-narrative in their profession (not only in classroom teaching but also in creation and sharing of learning designs between colleagues). For these reasons, an important issue in initial training is to continue to investigate how future teachers can learn to build meaningful video-storytelling experiences (Jamissen, Hardy, Nordkvelle, & Pleasants, 2017).

From this perspective, research methodology is a rather complex issue, as Van den Akker (1999) states by introducing the term "development research". Development research has a dual purpose:

- to support the development of prototype products (including the generation of empirical evidence for their effectiveness);
- to generate methodological guidance for the design and evaluation of such products. In this approach, scientific contribution (knowledge development) is considered as important as practical contribution (product improvement).

Currently, pilot experiences in the use of video in teaching more commonly focus on learning content; its use for initial training is less explored, as is the production of student videos as an authentic task in an active learning perspective, which is useful for the development of soft skills (e.g. communication, reflection, collaboration, etc). Studies into the significance of the educational and cultural potential of video-storytelling productions become fundamental from a pedagogical point of view when considering two principles: the first is that the organization of learning experiences can be enhanced through the creation of meaningful stories; the second is that narrator-user interaction produced allows dialogic, formative and transformative processes (Masats & Dooly, 2011; Blomberg, Renkl, Sherin, Borko, & Seidel, 2013; Corazza, 2017).

Video-narration, with its potential for dialogical communication between producer and user, is a mediation tool strategy for promoting interest, involvement and constructive exchange of knowledge (Seidel, Blomberg, & Renkl, 2013; Seidel & Stürmer, 2014; Arcagni, 2016). It results in increased awareness of thought support functions such as external representation of knowledge and tools to express a series of events connected temporally and causally (Turner, & Turner, 2003). It is an organizational principle to stimulate reflective thinking (McEvan, 1997), a real

psychological process able to foster interaction among cognitive mechanisms such as the principle of cause and effect, reasoning, language, visual thinking (Xu, Park, H., & Baek, 2011). The development of technologies and their increasing adoption in the educational field have created a wide range of useful tools for video-storytelling in various educational contexts and for different purposes (Dettori et al., 2006; Santagata & Angelici, 2010). From this perspective, it is possible to talk about real learning environments that, through the narrative methodological approach, favour real cognitive integration between the assigned task, or the considered objective, reflection on the fruition process, and the production of video-storytelling (Timchenko, 2006).

For the training of future teachers, it is necessary to think of a didactic format that allows students to experience digital video-narrative by enriching lectures with blended workshops using appropriate technological environments (Wallace & VanderMolen, 2019). From this perspective, the blended learning format (presence/distance) is characterized as a hybrid solution as it is proposed coherently through different resources and tools. "Hybrid" signifies the integration not only of elements related to real or virtual spatiality but also of communication modes (synchronous and asynchronous), of teaching strategies to be adopted at different times and in the different spaces in which the teaching-learning process develops, of different technological tools and learning resources to be used to support individual and/or collaborative study (Trentin & Bocconi, 2014).

In the present study (which in based on the "development research" approach concerning the initial training of teachers), the employment of video was not conceived simply for conventional exploitation of contents, as is usuall y the case (Santagata, Zannoni, & Stigler, 2007). Rather, it is seen as a tool for the production of collaborative design (Tiernan, 2015). The method is that of co-constructed design as a strategy of dialogical reflection among students to highlight their process of project reasoning (Gaudin & Chaliès, 2015; Lofthause, 2019).

In this experience, video production was adopted for designing a language learning unit for kindergarten and primary school with activities conducted in small groups. The delivery concerned the emergence of two areas of implicit elements through storytelling:

- organizational, methodological and evaluative decision making in each phase of the didactic video-narrated project;
- 2) reflection on soft skills, perceived as important for creation of the video-narrative project.

The activity of designing and producing videos was proposed to 132 students following an undergraduate course in Primary Education Sciences, in the teaching of "Didactics of Reading and Writing". The student cohort comprised a vast majority of females (F 95%, M 5%), with an average age of 22 years, and 23% of students working part-time at school. The research was proposed as part of a digital video-narration workshop scheduled in the Didactics of Reading and Writing course. The workshop was provided in Blended mode (30% at a distance), combining face to face lessons (Didactics of Reading and Writing) and collaborative distance learning conducted on the Moodle platform in small groups of four participants.

The workshop design took due account both of the potential and the complexities involved in training future teachers, especially regarding the specific soft skills that were targeted for development. The selection of the soft skills to be involved in the workshop was made collaboratively during the planning phase by a working group that comprised representatives both of the academic and school worlds. This approach lent the design more coherence with the training objectives required by the school's working contexts. The group consisted of the following figures: the president of the course of studies, the teacher of the course (methodological and subject area expert), an teacher experienced in the field of linguistics, an educational technologist and other stakeholders (an inspector

from the regional school authority, a school principal, a primary school teacher, and a teacher designated as a local schools' consultant for digitally enhanced teaching.

This working group drew up of a list of 14 soft skills largely drawn from the comparative taxonomy work of Mahasneh and Thabet (2016), who categorize detailed competencies described in the literature, reducing these to 120 soft skills. From these, 12 skills were chosen, while two further skills were added, namely "suitability for the task and role" and "evaluation of contexts/products"; these were not present in the cited study, but were considered particularly important by the members of the expert group. These competencies were the subject of the subsequent questionnaire related to the students' beliefs and in evaluation of their actual involvement in the video narration activity.

2. THE RESEARCH PROCESS: METHODOLOGY

2.1. Description of the educational and research context

The research foresaw adoption of the blended learning model and involved use of the Moodle platform integrated with an academic video platform (Kaltura) by way of two plugins (Tiernan & Gurrin, 2012). The first of these is "Video Assignment", which uses the video platform and related video production tools (KalturaCapture) allowing students to perform a task in the form of multimedia text. The second is called "Media Gallery", where students can share their artifacts by creating a storage space in the online classroom.

The online activity proposed to the students within the workshop required them to engage in video production using the tools described above. The collaborative task involved adopting a design scheme provided by the teacher during the face to face classes for building a simple learning activity in a language area for kindergarten or primary school children.

In short, the trainees were required to produce a video describing how to develop an activity for the development of playful techniques that would foster processes of reading and writing with different purposes (listening - speaking; speaking - writing; reading - writing texts).

2.2. The research setting and data collection tools

The research is part of a wider university-level investigation, in which the specific academic course is considered a case study (Mills, Durepos, & Wiebe, 2010). During last two years, we have investigated the general impact and the specific aspects of the use of Hybrid Solutions (De Rossi & Ferranti, 2017) and the use of video to design and present learning activities, both from the teacher's and the students' viewpoints (Ferranti, Dal Bon, & Toffanin, 2018).

Indeed, over the last two years the Digital Learning and Multimedia Office (DLM) of the University of Padova has introduced an academic system to facilitate the production of videos using a video platform and their subsequent distribution via Moodle. With the support of the office team, many teachers have modified their teaching practices by integrating video in teaching and learning (Dal Bon, & Ferranti, 2019).

Among the many courses available to study, we selected "Didactics of reading and writing" because it represents a case in which students themselves created video assignments and shared their artifacts with the class community. We describe this process from both qualitative and quantitative points of view (Mills et al., 2010; Shareia, 2016).

The main research question, in this specific case, was: "Can a workshop activity of video-narration, through blended and hybrid teaching, stimulate specific soft skills in initial teacher training?".

To answer this question, we adopted a mixed-method strategy (Mills et al., 2010; Shareia, 2016) featuring a qualitative-quantitative questionnaire addressed to the trainees (quantitative item N = 25, with a self-standing scale with values from 1 to 4).

We used this scale because in the literature it is clear that it is a measurement method that can be statistically treated as quantitative data, i.e. as a quasi-cardinal and non-orderly self-anchoring scale and can, therefore, be processed in a quantitative (parametric) way (Corbetta, 2003, p. 42; Grimaldi, 2000).

The dimensions we focused on when starting to build the questionnaire were: 1) beliefs regarding a hybrid solution and blended learning using video-narrative technologies (item N=11), and beliefs regarding the involvement of soft skills in the required activities (item N=14). On the other hand, in the qualitative part we required participants' reflection on the learning experience with video assignments in terms of the soft skills stimulated. The questionnaire was administered inbound before the activity (Respondents N=132) and outbound after completing the activity (Respondents N=92) but before the final evaluation.

2. 3. FINDINGS

3.1. Students' beliefs about blended and hybrid learning using video-narrative technologies

The data from our investigation are numerous. In this context, it was considered interesting to report the mode and the average about beliefs on blended and hybrid learning pre and post activities through a video assignment and the outcome of a T-test of students for independent groups¹.

¹ The normality test was positive and, considering the number of participants of about one hundred and the quasi-cardinality of the adopted scale, it was considered sufficient to analyze the data with the T-tests described.

BELIEFS ON BLENDED AND HYBRID LEARNING USING VIDEO-NARRATIVE TECHNOLOGIES	Mode entry	Average entry	Mode exit	Average exit
Learning to use digital technologies is essential to improve my learning	3	2.96	3	2.95
Using video-narrative technologies facilitates the learning process	3	3.35	3	3.42
Using digital technologies in the classroom is a desirable opportunity	4	3.43	4	3.58
The use of a video platform helps students to find and interact with more precisely targeted educational resources	3	3,27	4	3.47
Video production technology environments help students to carry out professionalizing activities (simulations, case analysis, video presentations).	3	3.19	3	3.37
The online technological environments represent a useful space for practice at different times from classroom lessons	4	3.17	4	3.36
Video-narrative technologies help students to communicate with each other inside workgroups	3	2.92	3	3.00
The blended and hybrid form of teaching is important to promote work-life balance	3	3.23	4	3.42
Digital technologies help teachers to better represent subject content	4	3.37	3	3.32
In blended and hybrid teaching (on/off site) the teacher has to diversify educational methods	4	3.58	4	3.53
In blended and hybrid teaching (on/off site) the teacher should also actively participate in online activities	3	3.08	3	3.11
In blended and hybrid teaching (on/off site) the presence of an e-tutor is necessary	4	3.43	4	3.47

Table 1. Comparison of items: mode and average pre and post-activity.

That test shows which beliefs have significantly differed (outcome of the T-test with a value less than 0.05), thus supporting the hypothesis that it was the experience itself that changed their beliefs. All items (N=34) have been examined with T-Test, and among them only 7 items were found to be significantly relevant and are shown in the following table.

BELIEFS ON BLENDED AND HYBRID LEARNING	T-TEST < 0.05
Using digital technologies in the classroom is a desirable opportunity	0.029
The use of a video platform helps students to find and interact with more specifically targeted educational resources	0.012
Video production technology environments help students to carry out professionalizing activities (simulations, case analysis, video presentations).	0.027
The online technological environments represent a useful space for practice at different times from classroom lessons	0.028
The blended and hybrid form of teaching is important to promote work-life balance	0.018

Table 2. Comparison of items: T-test (<0.05) for independent groups.

After the learning activity (workshop), the participants strongly believe that integrating technologies in the classroom is a desirable action. It should be noted that technologies are not so widely used in classrooms, even though the DLM Office at the authors' university has adopted a series of tools for this purpose, such as TopHat, Padlet, Zoom, specific Moodle modules for classroom teaching, and so on. It also emerges that the adoption and use of a dedicated video platform is a real support to the retrieval and use of targeted educational resources. Another firm belief clearly emerged: production, editing, and publication tools allow the entire learning community to perform professionalizing activities such as case analysis and simulations. These were the beliefs most closely related to the use of the video presentation and academic production system. On the other side, it is interesting to consider the impact of technologies regarding an alternative concept of learning space and time, reflected in a more flexible mode of attendance. Hybrid learning spaces allow participants to organize differently and balance the time dedicated to learning activities, study, work, and family commitments.

3.2. Students' beliefs and evaluation regarding soft skills

Both before and after the blended activity the students quantified beliefs about soft skills proposed to them in the questionnaire. The T-test shows that that the activity had a substantial impact on beliefs, with 50% of the soft skills were in a significantly different way, namely they were held to be more relevant after performing the activity, leading us to conclude that the activity itself was the source of changed beliefs.

SOFT SKILL BELIEFS	MODE (M1) ENTRY	AVERAGE (A1) ENTRY	MODE (M2) EXIT	AVERAGE (A2) EXIT	T-TEST < 0.05
Autonomy (self-direction)	3	2.92	3	3.47	0.0013
Adaptability	4	3.39	3	3.26	0.2210
Planning and organization	3	3.11	4	3.47	0.0171
Accuracy	3	3.21	3	3.32	0.2874
Information management	3	3.19	3	3.47	0.0431
Entrepreneurship	3	3.14	3	3.37	0.1188
Effective communication	3	2.89	4	3.42	0.0047
Problem Solving	3	2.93	3	3.21	0.0564
Team work	3	2.79	4	3.68	0.0000
Negotiation	3	3.15	3	3.32	0.1913
Adequacy to task and role	3	2.95	4	3.47	0.0020
Assertiveness	3	2.79	3	3.26	0.0037
Creativity	3	3.15	3	3.47	0.0427
Evaluation of	3	2.95	3	3.21	0.0769

Table 3. Comparison of beliefs on soft skills (mode and average) with T-test for independent groups.

Comparison of data on beliefs regarding soft skills reveals significant results related to autonomy, planning and organization, information management, effective communication, teamwork, adequacy to the task and role, assertiveness and creativity. This outcome is important because a complex and articulated learning activity, such as that proposed, really affects several aspects. It leads us to affirm that teaching, even when it has subject-area objectives, can be considered in terms of transversal skills. In addition to the comparison of beliefs, which we can consider an indirect method, we asked the students to directly consider which skills were stimulated and involved in the activity carried out. The first seven competencies in order of average are Creativity (A=3.7), Teamwork (A=3.7), Planning and organization (A=3.6), Information management (A=3.5), Effective communication (A=3.5), Negotiation (A=3.5), Adequacy to the task and role (A=3.5).

The variability in the beliefs on transversal competencies among the groups, in the answers given before and after the activity, might seem high for the number of transversal competencies, compared to the totality considered (8 out of 14). Our hypothesis is that this was determined by the fact that the activity enacted during the course, with its complexity and multidimensionality, induced students to experiment and understand in a metacognitive way the spectrum of skills involved and stimulated during the video assignment. For example, the data related to teamwork, in which the difference between the two groups is so marked (A1=2.79 and A2=3.68), could be explained by postulating that in the incoming questionnaire the students found the possibility of setting in motion the collaborative skills necessary for the production of a learning project in the form of a video was really not very concrete. However, by carrying out the activity in small groups online and involving the use of new technologies, showed the majority of the students the role and power of the collaborative process necessary for the realization of delivery.

3.3. Soft skill: qualitative analysis and student satisfaction

During the design process of the video narration activity, we started by selecting the following three soft skills: teamwork, creativity, and effective communication. We described the activity required, imagining that the assignment could stimulate those three soft skills in particular.

Therefore, in the exit questionnaire we asked respondents to consider the list of 14 skills proposed and choose the one they considered most significantly involved in the activity, and to describe why. From the descriptions, we produced a categorization of the qualitative data, reported below (Figure 1), showing which soft skills were most commonly mentioned for importance.

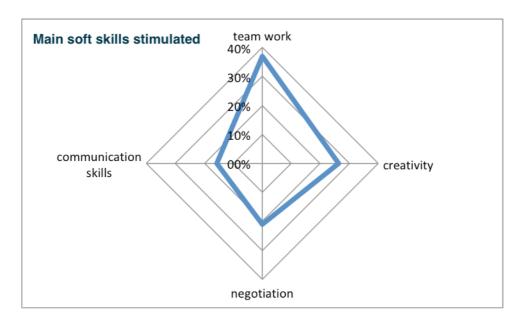


Figure 1. Main soft skills described in open questions (qualitative part of the research).

Some of these also emerged in the Belief part of the survey and were mentioned several times in the qualitative part. Some student statements are reported below to give a semantically relevant account of what the considerations were. One student writes:

"In my opinion, I have mainly developed my creativity because I had to rethink what I learned so far and the ideas given during the various lessons for designing the video narration which were, at least in part, different from what we'd already seen in textbooks; also, using tools (the Kaltura and Powtoon video platforms) fostered my creative ability".

Another student writes: "I think this type of activity helps group work a lot and stimulates creativity thanks to the aid of educational technologies. Working in groups helps to deal better with a "problem" situation and to share and negotiate opinions on any decision taken". Another participant mentions soft skills that are more closely linked to each other in the activity carried out: "About teamwork, even if only in pairs, humility, creativity, participation, and negotiation were fundamental throughout the production and editing of the video: even if the knowledge was shared, the ideas could be different, and therefore it was essential to make compromises, modify (things) together, taking others' opinions into account the. It is essential to develop this soft skill because collaborative skill is essential in the professional future of teachers".

In addition to the purely qualitative data, we can report the values related to the level of general satisfaction and other specific level related to the only three skills selected and defined in the design phase of the activity, realized from the teacher of the course:

LEVEL OF SATISFACTION	AVERAGE
General level of satisfaction in the video assignment	3.2
Level of satisfaction related to the following soft skill: teamwork	3.5
Level of satisfaction related to the following soft skill: creativity	3.5
Level of satisfaction related to the following soft skill: effective communication	3.3

Table 4. Level of general and specific satisfaction (from 1= not at all satisfied to 4= fully satisfied).

From the comparison between beliefs, qualitative descriptions and levels of satisfaction, it is hence possible to affirm that the overall and articulated activity proposed, in addition to subject area content, provides opportunities to develop transversal skills. This outcome suggests that students can be trained in more complete and professional terms, because in their future working context they will be called upon to communicate effectively, to work in groups, to negotiate and to find creative solutions to daily challenges.

The activity required the involvement of different skills, and digital narration of the educational design process strengthened some soft skills in the students but above all activated specific educational design skills that are required in their future profession as teachers. The phases of multimedia writing (video or animation) and the development of digital stories certainly required greater awareness of the design phases themselves, given leading educational activities in the field.

4. DISCUSSION AND CONCLUSIONS

This research study, proposed as a case study on the use of a video assignment involved a limited number of students from the overall degree course on Primary Education Sciences, but significantly it involved the entire second year class.

Internal and external validity of the study was problematic as the subject area the students studied was narrow in scope. However, particular care was taken not to influence the students by proposing the pilot task not as an experiment but as part of the mainstream teaching program. Another element of attention was support from a researcher acting in a role distinct from the teacher in order to reduce the risk of overlap between the performance of the task for research purposes and assessment of outcomes for the evaluation of learning outcomes (Corbetta, 2003). However, it is reasonable to assume that the study could be extended from initial training of pre-school and primary school teachers to more subject-oriented teaching, highlighting its ecological validity. Indeed, the experience was carried out in an environment (mainstream training context), considered as the real design setting, where attention was paid to how the subjects involved perceived the situation in terms of delivery of the laboratory task (Bronfenbrenner, 2005). In addition, the research has an ecological validity perspective as the data emerged from teaching activities carried out by students in a real context.

In general, on the integration of educational technologies in academic teaching through blended and hybrid solutions, the students' answers highlighted some interesting elements concerning the pre-service training of teachers: a) students appreciate the use of digital technologies also in the classroom; b) video-production helps to develop authentic tasks how happens in concrete contexts of work, in the school; c) the use of a video platform helps students to find and engage with more targeted educational resources; d) in general, blended and hybrid solutions promote the flexibility and customization of times and ways of learning.

As far as soft skills involved in the learning processes, it is important to observe the level of coherence that emerges from three different groups of data collected:

- 1) the quantitative data related to the beliefs on soft skills in general;
- 2) the data related to the quantitative evaluation of the specific soft skills involved in the videonarration activity;
- 3) the qualitative data from the final reflections of the students about developed skills, with their motivations.

The first evidence emerges from the T-test, for which two out of three of the soft skills proposed in the workshop program (effective communication and creativity) proved to be significant for the students after the activity of video production.

The second evidence shows that the various skills stimulated and involved in the activity, include creativity (first place), teamwork (second place) and effective communication (fifth place).

The third evidence is the coherence between the soft skills proposed by the program and the preferences highlighted by the students in their reflection on their video-narrative activity. This last finding should be added to the high level of satisfaction related to the practical involvement of three specific skills the teacher chose in the initial design phase. They were considered suitable for the type of group activity and production of video narration required.

Summarizing, with a certain degree of caution, it is possible to provide some relevant considerations:

- 1) In line with some studies in the specific field of digital storytelling (Calandra, 2014; Pappas, Giannakos, & Mikalef, 2017), it is possible to confirm the positive impact of the use of videonarration for teacher training, which offer concrete opportunities to develop professionalizing digital skills in an active learning perspective.
- 2) The activity involved transversal skills like teamwork, creativity, negotiation and effective communication (Campbell & Cox, 2018).

3) The effectiveness of the overall video-narration workshop experience applied to content seems to lie in careful design, with the integration of soft skills and hard subject area skills in mind, together with enactment through active, collaborative and reflective methodological approaches.

In conclusion, the authors are considering the possibility of further developing this research by expanding the number of lessons involved. Additionally, some changes are being examined with respect to the mix-method research design of the evolutionary approach presented here. We hypothesize the possibility of adopting a semi-experimental method to re-propose the research with a different perspective by comparing an experimental group engaged in an assignment to design an educational video with a control group undertaking similar design activities, but without involving the production of a video. This would make it possible to carry out more precise analyses and obtain more solid data about the potential transferability of the research itself.

5. REFERENCES

Angeli, C. (2015). Technological pedagogical content knowledge: A framework for preparing teachers in technology integration. In M. Rui, L. Messina, & T. Minerva (Eds.), *Proceedings della Multiconferenza Ememitalia2015, Teach different!* (pp. 2-6). Genova, IT: De Ferrari Ed. Retrieved from http://www.ememitalia.org/phocadownload/attiEMEMITALIA2015.pdf

Arcagni, S. (2016). Visioni digitali. Vedo, web e nuove tecnologie. Torino, IT: Einaudi.

Blomberg, G., Renkl, A., Sherin, M.G., Borko, H., & Seidel, T. (2013). Five research-based heuristics for using video in pre-service teacher education. *Journal for Educational Research*, *5*(1), 90-114. Retrieved from https://www.researchgate.net/publication/256639966_Five_research-based_heuristics_for_using_video_in_preservice teacher education

Brame, C. J. (2016). Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content. *CBE Life Sciences Education*, *15*(4), es6. doi: 10.1187/cbe.16-03-0125

Bronfenbrenner, U. (Ed.) (2005). *Making human beings human. Bioecological perspectives on human development.* New York, NY, USA: Sage.

Bruner, J. (1993). La mente a più dimensioni. Roma-Bari, IT: Laterza.

Calandra, B. (2014). A process of guided, video-based reflection. In B. Calandra & P.J. Rich (Eds.), *Digital video for teacher education. Research and practice* (pp. 137-145). Abingdon, UK: Routledge.

Campbell, L. O., & Cox, T. D. (2018). Digital video as a personalized learning assignment: A qualitative study of student authored video using the ICSDR Model. *Journal of the Scholarship of Teaching and Learning*, *18*(1), 11-24. doi: 10.14434/josotl.v18i1.21027

Corazza, L. (2017). Apprendere con i video digitali. Milano, IT: Franco Angeli.

Corbetta, P. (2003). *La ricerca sociale: metodologia e tecniche. Le ricerche quantitative, vol. 2.* Bologna, IT: Il Mulino.

Dal Bon, C., & Ferranti, C., (2019). Il video nella didattica universitaria: esperienze di utilizzo di una piattaforma di digital media integrata con Moodle. In Atti di *Moodle Moot Italia*, Milano, 13-15 dicembre 2018, (pp. 17-24). Milano, IT: MediaTouch 2000. Retrieved from https://www.aium.it/mod/data/view.php?d=27&rid=398

De Rossi, M. (2017). Questioni metodologiche, soft skill e integrazione delle ICT. Methodological demands, soft skill and ICT integration. *Formazione & Insegnamento*, *15*(1), 193-204. doi: 107346/-fei-XV-01-1_15. Retrieved from https://ojs.pensamultimedia.it/index.php/siref/article/view/2174/1983

De Rossi, M., & Restiglian, E. (2019). Hybrid solutions for didactics in higher education: An interdisciplinary workshop of 'Visual Storytelling' to develop documentation competences. *Tuning Journal for Higher Education*, *6*(2), 175-203.

De Rossi, M., & Ferranti, C. (2017). Learning by design nell'intersezione tra discipline, metodologie didattiche e tecnologie. *Italian Journal of Educational Reasearch*, Special number 2017, 241-254. Retrieved from https://ojs.pensamultimedia.it/index.php/sird/article/download/2502/2248/9081

De Rossi, M., & Petrucco, C. (Eds.) (2013). *Le narrazioni digitali per l'educazione e la formazione*. Roma, IT: Carocci.

De Rossi, M., & Trevisan, O. (2018). Technological pedagogical content knowledge in the literature: How TPCK is defined and implemented in initial teacher education. *Italian Journal of Educational Technology*, 26(1), 7-23. doi: 10.17471/2499-4324/988

Dettori, G., Giannetti, T., Paiva, A., & Vaz, A. (Eds.) (2006). *Technology-mediated narrative environments for learning*. Rotterdam, NL: SensePublishers.

European Commission's Science and Knowledge Service (2017). *Digital competence framework for educators (DigCompEdu*). Retrieved from https://ec.europa.eu/jrc/en/digcompedu

Ferranti, C., Dal Bon, C., & Toffanin, M. (2018). Esperienze di didattica universitaria attraverso una piattaforma video: la prospettiva del docente e le proposte di student engagement. In *Exploring the Micro, Meso and Macro, EDEN Annual Conference Proceedings*, Genova 17-20 June, 2018 (pp. 653-662). Retrieved from http://www.eden-online.org/wp-content/uploads/2018/06/Annual 2018 Genova Proceedings.pdf

Gaudin, C., & Chaliès S. (2015). Video viewing in teacher education and professional development: A literature review. *Educational Research Review*, 16, 41-67.

Grimaldi, R. (2000). Elementi di metodologia e tecniche della ricerca sociale. Milano, IT: FrancoAngeli.

Jamissen, G., Hardy, P., Nordkvelle, Y., & Pleasants, H. (Eds.) (2017). *Digital storytelling in higher education. international perspectives*. New York, NY, USA: Springer.

Kaneklin, C., & Scaratti C. (Eds.) (1998). Formazione e narrazione: costruzione di significato e processi di cambiamfeento personale e organizzativo. Milano, IT: Raffaello Cortina.

Lofthouse, R. M. (2019). Narratives of collaboration in practice; discourses, dimensions and diversity in collaborative professional development. In *Teacher Education Policy in Europe (TEPE)*, "Quality Teachers and Ouality Teacher Education: Research, Policy and Practice", 16-18 May 2019, Krakow, Poland.

Mahasneh, J. K., & Thabet, W. (May 25, 2016). Developing a normative soft skills taxonomy for construction education. *Journal of Civil Engineering and Architecture Research*, *3*(5), 1468-1486. Retrieved from https://www.researchgate.net/profile/Jaser_Mahasneh3/publication/327350993_Developing_a_Normative_Soft_Skills_Taxonomy_for_Construction_Education/links/5b89c851299bf1d5a735a89e/Developing-a-Normative-Soft-Skills-Taxonomy-for-Construction-Education.pdf

Masats, D., & Dooly, M. (2011). Rethinking the use of video in teacher education: A holistic approach. *Teaching and Teacher Education*, 27(7), 1151-1162.

McDrury, J., & Alterio, M. (2003). *Learning through storytelling in higher education*. London, UK: Kogan Page.

McEvan, H. (1997). The functions of narrative and research on teaching. *Teaching and Teacher Education*, 13(1), 85-92.

Mills, A. J., Durepos, G., & Wiebe, E. (2010). *Encyclopedia of case study research*. Thousand Oaks, CA: SAGE Publications. doi: 10.4135/9781412957397

OECD. (2015). Students, computers and learning: Making the connection. Paris, FR: OECD Publishing. doi: 10.1787/9789264239555-en

Pappas, I. O., Giannakos, M. N., & Mikalef, P. (2017). Investigating students' use and adoption of with-video assignments: lessons learnt for video-based open educational resources. *Journal of Computing in Higher Education*, 29(1), 160-177. doi: 10.1007/s12528-017-9132-6

Perrenoud, P. (2003). Costruire competenze a partire dalla scuola. Roma, IT: Anicia.

Petrucco, C., & De Rossi, M. (2009). Narrare con il digital storytelling a scuola e nelle organizzazioni. Roma, IT: Carocci.

Ranieri, M., & Manca, S. (2013). I social network nell'educazione. Basi teoriche, modelli applicativi e linee guida. Trento, IT: Erickson.

Restak, R. (2004). The new brain: How the modern age is rewiring your mind. London, UK: Rodale.

Rivoltella, P.C. (2012). Neurodidattica. Insegnare al cervello che apprende. Milano, IT: Raffaello Cortina.

Santagata, R., & Angelici, G. (2010). Studying the impact of the lesson analysis framework on preservice teachers' abilities to reflect on videos of classroom teaching. *Journal of Teacher Education*, 61(4), 339-349.

Santagata, R., Zannoni, C., & Stigler, J. W. (2007). The role of lesson analysis in pre-service teacher education: An empirical investigation of teacher learning from a virtual-based field experience. *Journal of Mathematics Teacher Education*, 10(2), 123-140. doi: 10.1007/s10857-007-9029-9

Schank, R. (1990). *Tell me a story: A new look at real and artificial memory*. New York, NY, USA: Charles Scribner's Sons.

Schank, R. (2013). Stories are all we know. In M. De Rossi & C. Petrucco (Eds.), *Le narrazioni digitali per l'educazione e la formazione* (pp. 52-60). Roma, IT: Carocci.

Seidel, T., & Stürmer, K. (2014). Modeling and measuring the structure of professional vision in preservice teachers. *American Educational Research Journal*, *51*(4), 739–771.

Seidel, T., Blomberg, G., & Renkl, A. (2013). Instructional strategies for using video in teacher education. *Teaching and Teacher Education*, *34*, 56-65. doi: 10.1016/j.tate.2013.03.004

Shareia, B. F. (2016). Qualitative and quantitative case study research method on social science: Accounting perspective. *Dimension*, 2(5), 23.

Sung, Y. T., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers and Education*, *94*, 252-275. doi: 10.1016/j.compedu.2015.11.008

Tiernan, P. (2015). An inquiry into the current and future uses of digital video in university teaching. *Education and Information Technologies*, 20(1), 75-90. doi: 10.1007/s10639-013-9266-8

Tiernan, P., & Gurrin, C. (2012). Towards developing a collaborative video platform for learning. *International Journal of Digital Society*, 3(3), 663-669. Retrieved from https://infonomics-society.org/wp-content/uploads/ijds/published-papers/volume-3-2012/A-Collaborative-Video-Platform-for-Learning-From-Framework-to-Action.pdf

Timchenko, O. (2006). Narrative for motivation and meaning making. In G. Dettori, T. Giannetti, A. Paiva, & A. Vaz (Eds.), *Technology-mediated narrative environments for learning* (pp. 115-22). Rotterdam, NL: SensePublishers.

Traxler, J. (2009). Learning in a mobile age. *International Journal of Mobile and Blended Learning*, *I*(1), 1–12. Retrieved from https://www.igi-

global.com/viewtitlesample.aspx?id=2754&ptid=34608&t=LearninginMobileAge

Trentin, G., & Bocconi, S. (2014). The effectiveness of hybrid solutions in higher education: A call for hybrid-teaching instructional design. *Educational Technology*, *54*(5), 12-21. Retrieved from https://www.researchgate.net/publication/265333799_The_Effectiveness_of_Hybrid_Solutions_in_Higher_Education_A_Call_for_Hybrid-Teaching_Instructional_Design

Turner, P., & Turner, S. (2003). Telling tales: Understanding the role of narrative in the design of taxonomic software. *Design Studies*, 24(6), 537-47. Retrieved from https://www.academia.edu/17456685/Telling_tales_understanding_the_role_of_narrative_in_the_design_of_tax onomic_software

Vaiola, P. (2016). I rischi e le opportunità del digitale a scuola. Spunti di riflessione per progettare la formazione dei docenti. *Form@re*, 2(16), 180-193. doi: 10.13128/formare-18196

van den Akker, J. (1999). Principles and methods of development research. J. van den Akker, R.M. Branch, K. Gustafson, N. Nieveen, & T. Plompt (Eds.), *Design approaches and tools in education and training* (pp. 1-14). Dordrecht, NL: Springer Science.

Wallace, H., & VanderMolen, J. (2019). Teaching health education through the development of student centered video assignment. *Frontiers in Public Health*, 7. doi: 10.3389/fpubh.2019.00312

Xu, Y., Park, H., & Baek, Y. (2011). A new approach toward digital storytelling: An activity focused on writing self-efficacy in a virtual learning environment. *Journal of Educational Technology & Society*, *14*(4), 181-191. Retrieved from https://www.jstor.org/stable/jeductechsoci.14.4.181?seq=1#metadata_info_tab_contents