



Groupwork and participatory media

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Published online: 23 June 2015

Abstract: Face-to-face groupwork sessions combined with online participatory social media could be a quite promising pedagogical strategy. In this paper, we present the pedagogical design and the rationale for groupwork in a blended educational landscape. In traditional teaching, the emphasis is given on the dissemination of information, on rich content delivery by a sage on the stage. In the proposed model, the educator acts as a facilitator, as the active guide on the side of the group, delegating authority and responsibility to the participating students. Human societies are confronted today with complex problems that cannot be addressed by isolated individuals' actions. Where concerted group action is required in order to tackle with quite complex problems, groupwork in blended educational settings could be a quite promising pedagogical model. In well-organized groupwork, self-organization dynamics are in play and complex properties emerge as the byproduct of members' synergies and group's transaction in the here and now of the group. A working prototype of this blended approach to groupwork, combining live face-to-face sessions with asynchronous online reflective practice, is presented.

Keywords: group work, participatory media, reflective practice, human complex systems

Acknowledgement: This is an original paper that presents personal views of the authors.

Introduction

In the present paper, we describe the pedagogical model and the epistemological background for a blended teaching approach combining face-to-face groupwork sessions with asynchronous cooperation on participatory web media. The proposed model is based on the general principles of the learning organization, as it is theorized by Senge (2006). In this approach, the teacher tries to facilitate a living group process. As Cohen & Lotan (2014) highlight, we learn more about concepts and ideas when we talk about them, when we discuss them and when we reflect

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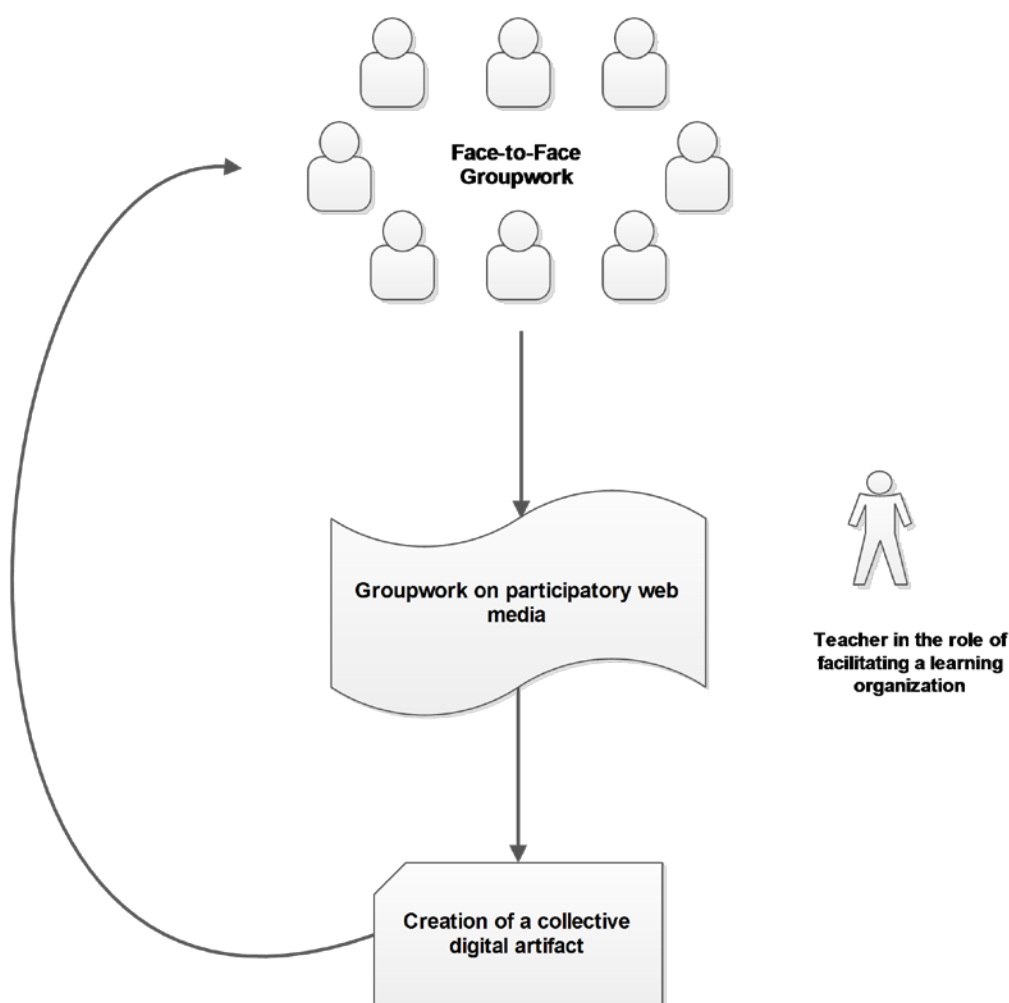
on them. Based on this premise, the proposed pedagogical model can be summarized in the following points:

(a) Group work in the classroom (face-to-face), in the form of an active discussion about a topic of interest, with the educator in the role of the facilitator of a learning organization (guide on the side). Work in the here-and-now of the group trying to accomplish a given task.

(b) Following the face-to-face group's transaction, the participants make individual reflective contributions on their own personal blogs (student-owned web spaces).

(c) A digital document is created by the educator as a narrative synthesis of the participant's reflections and is subsequently uploaded on a cloud service (like Google docs) for further collective editing.

Figure 1: Group learning with participatory media.



The overall course design is graphically represented on Figure 1: Group's transaction, in the form of groupwork facilitated by the instructor, takes place face-to-face while the creation of the collective digital artifact takes place online. The innovation in the proposed design lays on the combination of face-to-face, small group, sessions of collaborative inquiry with the online process of personal reflections and cooperative production. The face-to-face group's transaction forges strong inter-member relations that can be successfully continued online by utilizing participatory web media.

In the blended pedagogical model we propose in this paper, the teacher undertakes the role of the facilitator of a learning organization. The paradigm shift from the "sage on the stage" to the "guide on the side" model in an educational environment could transform the teaching and learning experiences of the participants. Self-organization requires members to stay attuned as constituent parts of a greater whole, as subsystems of a complex system (Feldman, 2012). In the proposed model, students are early engaged in direct experiences related to real world and contemporary problems through the use of reflective practice and responsibility is delegated to them by the educator.

Groupwork dynamics

What constitutes groupwork and why there is a need for groupwork in education? According to Cohen & Lotan (2014), groupwork can be defined as students' work in a group, small enough so everyone can actively participate in the group's transaction. Although small groups are not a panacea for all the problems encountered in modern educational settings, the proposed pedagogical design constitutes a promising paradigm shift that is not easy to implement. There is always the fear of the unknown: "Even when our traditions are flawed, at least they are comfortable flaws. Change invites fear of what follows" (Gergen, 2011, p. xxv). However, if an educator wants to produce active learning, then groupwork, properly designed, is a powerful tool for engaging all students in a meaningful transaction (Cohen & Lotan, 2014). It is thrilling to read today, in an era of networked publics and participatory web media, what Alison King wrote back in 1993, when she introduced us to the dichotomy of *Guide on the Side vs. Sage on the Stage*:

In most college classrooms, the professor lectures and the students listen and take notes. The professor is the central figure, the "sage on the stage," the one who has the knowledge and transmits that knowledge to the students, who simply memorize the information and later reproduce it on an exam - often without even thinking about it. This model of the teaching-learning process, called the transmittal model, assumes that the student's brain is like an empty container into which the professor pours knowledge. In this view of teaching and learning, students are passive learners rather than active ones. Such a view is outdated and will not be effective for the twenty-first century, when individuals will be expected

to think for themselves, pose and solve complex problems, and generally produce knowledge rather to reproduce it (King, 1993, p. 30).

The sage on the stage model implies that there is direct supervision behalf of the educator. The teacher controls everything, being the supreme master of the class. On the other hand, "when the teacher gives students a group task and allows them to struggle on their own and make mistakes, she has delegated authority. This is the first key feature of groupwork" (Cohen & Lotan, 2014, p. 2). Delegating authority is quite critical: students are held responsible for the outcome of their transaction in the here and now of the group. Undertaking responsibility in a group is instrumental to students' growth and personal development (Agazarian & Gantt, 2000). A quite critical question is: who is in charge of the group process, the teacher or the students? Of course the educator is in charge of running the class and setting a safe context for the students to learn and thrive. However, if the teacher is in charge of every learning task, she will do all the talking during a session (Cohen & Lotan, 2014).

If the teacher wants to allow students to self-organize and produce a learning outcome on their own, she has to gradually delegate all the authority for specific tasks to students. Only when the students are held responsible for their group's transaction, groupwork works: "Even if the teacher assigns a task to a group but hovers nearby waiting to intervene at the first misstep or sign of confusion, she is not delegating authority; she is using a direct supervision." (Cohen & Lotan, 2014, p. 2). However, the experienced educator "is intimately familiar with striking the balance between classroom and lesson structures that are too rigid to allow for innovative responses and structures that are too loose to enable coherent activity" (Davis & Sumara, 2006, p. 103). In the context of groupwork, a learner can be understood as a *structuring structured structure* (Davis & Sumara, 2006), as a constituent block of a complex whole that shapes its constituent parts while is shaped by them:

...the act of teaching must be understood in terms of emergent choreography in which the teacher's and students' actions are able to specify one another. Of course, this point is not news to educators. A popular joke among teachers is the inherent foolishness of the claim, "I taught it, they just didn't learn it," often used as a self-mocking reference to less-than-effective classroom events (Davis & Sumara, 2006, p. 100).

A common proverb that resonates strongly with complexity theory is that *it takes two to tango*. In complex systems pedagogy it actually takes a group to learn: "The edge-of-chaos image arises in coevolution as well, for as we evolve, so do our competitors; to remain fit, we must adapt to their adaptations" (Kauffman, 1996, p. 24). If group is a complex system that learns, that is constantly altering its own structure in response to external perturbations (Davis & Sumara, 2006), then groupwork is the vehicle to learning. Group tasks can be considered as external perturbations that drive the learning system far away from the equilibrium, at the threshold of chaos (Mitchell, 2009). Therefore, a key feature of

successful groupwork is the difficulty of the task. The group task has to be complex enough to require the combined members' effort to be addressed appropriately. Otherwise, there is no need for combined concerted group's action. A group of students constitute a complex whole with emergent properties (Davis & Sumara, 2006). These properties allow the group-as-a-whole to cope with tasks hard enough for any student alone. Complex tasks are groupwork provoking challenges: students need to cooperate to overcome the challenge.

Participatory web media on the stage

There many available participatory web media that can be utilized to facilitate group's transaction online. Among them, reflective blog posts can be used to facilitate peer-learning and professional development in settings where people learn from their own experiences rather than from an official body of knowledge. Organizing groupwork is a big challenge for a teacher. One unwanted pattern that often emerges when a teacher tries to facilitate groupwork sessions is that one or two students do all the work and undertake all the responsibility for the whole group with other members lurking on the side (Cohen & Lotan, 2014). Using personal web blogs and asking students to write down personal reflective posts, following every face-to-face session, ensures a minimum level of engagement for every group member. The teacher holds group members accountable through writing a personal short blog post, reflecting on their face-to-face group session: "The act of reflecting-on-action enables us to spend time exploring why we acted as we did, what was happening in a group and so on. In so doing we develop sets of questions and ideas about our activities and practice" (Smith, 2011).

Reflective practice as a term was introduced by Donald Schon in his seminal book *The Reflective Practitioner* (1983). His work was enthusiastically adopted by educators, health professionals and other practitioners that wanted to apply knowledge to practice and learn from their practice while being advised or supervised by peer professionals. Following the face-to-face group interaction (Figure 1), participants could be asked to write down a reflective essay, or another reflective multimodal digital artifact, and publish it on their own blog, using a unique, predefined hashtag. A hashtag is a special label that is used on social networks to make the search and retrieval of specific content easier. Personal blogs can be hosted in any blogging system, for example in Wordpress, tumblr, BlogSpot, or in any other web 2.0 platform. All the participants' blog posts could be easily aggregated on a central web spot by utilizing this predefined hashtag. Visiting frequently every single blog in a group of students to retrieve its content can take a long time and critical information could be missed by mistake. By using a predefined hashtag and an automated aggregator web system the participants' reflections can be always available on a unique central web spot.

Groupwork during face-to-face sessions ensures, to some degree, that students who usually do anything but what they are asked to do become more actively engaged on committed on a group's task. Participants comply more easily to the group's emerging norms in comparison to teacher's authoritarian directions

(Cohen & Lotan, 2014). On the other hand, during online part of the groupwork process, the schedule is more flexible and personalized, allowing students to differentiate from group's norms as far as they stay committed to the common task.

A working prototype

A considerable amount of literature has been published on using personal or institutional blogs to facilitate reflective practice in various forms among the members of a group (Beale, 2007; Yang, 2009; Kajder & Parkes; 2012). These studies highlight the positive implications of using blogs as a medium to promote reflective practice in various settings and to build networks and communities of reflective practice. Reflective practice can be grounded on group's transaction by asking students to reflect on their groupwork session. A central web site is required to aggregate all students' reflections on one web spot as we explain in the previous section. For a working prototype of a web aggregator site, see <https://hub6301.wordpress.com>. This prototype was developed for a senior undergraduate course in Psychology department of Panteion University of Social and Political Sciences, in Athens, Greece, during spring semester 2015, by Alexios Brailas.

In the case at hand, the lecture component was substantially reduced and replaced by groupwork in small group sessions. Students' reflections and narrative essays on their groupwork experience were subsequently blogged online and aggregated on a web spot to initiate the groupsourcing creation of a collective digital artifact. In this groupwork prototype the participants own their personal blog spaces. The aggregator hub functions only as a mashup web site to provide live links back to participants' personal posts. During the online part of the groupwork process, everything that is manifested on a blog post by an individual participant finally becomes part of a collective synthesis, a constituent block of group's narrative, as it is manifested on the aggregator hub, the group's virtual wall-noticeboard. Following individuals' blog posts aggregation, a collective group's meta-narrative is loaded on a cloud file service, like Google Docs or GitHub, to be further edited by all the participants.

In this groupsourcing approach to content creation, a digital artifact is co-produced by the group. In the specific prototype, the groupwork digital artifact took the form of collectively produced and web published course notes (see <https://leanpub.com/culture> for the course notes in the form of an edited volume produced in a period of only four months and available online). The idea behind group's, collectively produced and edited, digital artifact is to be a synthesis of members' work. It is the synthesis of the differences that produce new knowledge according to Gregory Bateson (1972): "A difference which makes a difference is an idea. It is a bit, a unit of information" (p. 271).

Discussion

In traditional teaching, the emphasis is given on the dissemination of information, on rich content delivery performed by a sage on the stage. In the present paper, we describe a pedagogical model based on small group sessions. During face-to-face groupwork sessions, students “communicate about their task with one another. They ask questions, explain, make suggestions, criticize, listen, agree, disagree, and make joint decisions. Interaction may also be nonverbal, such as pointing, showing how, nodding, frowning, or smiling.” (Cohen & Lotan, 2014, p. 3). This rich body of face-to-face non-verbal communication and interaction should not pass unexploited. In traditional teaching, students memorize scientific facts by studying the content of an official course book. In the proposed approach, students co-produce the content of their own course book through small group sessions and they take advantage of the participatory web media available today.

In terms of Bloom’s taxonomy of learning outcomes (Bloom, 1972), traditional lecturing has as an objective to attain the knowledge acquisition level or, perhaps, the comprehension level. In the proposed group work model, the objectives in Bloom’s terms are not only knowledge and comprehension; the objectives are application, interpretation, analysis, synthesis and evaluation (Jackson & Prosser, 1985). The inclusion, in the proposed model, of the digital media component allows for face-to-face group work to continue online and evolve in time, to be extended in a virtual space of real world interactions. In this way, members’ interactions are set before web media technology and authentic participatory culture can emerge on a blended ground.

After acknowledging the need for groupwork in face-to-face sessions and online, the question that arises naturally is how to organize successful group transactions? “Neither children nor adults necessarily know how to work successfully in a group setting, so learning how to work in groups becomes necessary” (Cohen & Lotan, 2014, p. 3). In order to learn how to work in groups, teachers have to work in groups themselves: “The face-to-face course delivery method, with its high level of personal interaction and use of role modeling, seems essential to both learning and practicing these skills” (Hunter et al, 2014).

However, contrary to what many teachers believe, there is nothing as practical as a good theory combined with real world practice (Cohen & Lotan, 2014). Today, “some of the fiercest debates in education are about what should be taught and who should decide” (Robinson & Aronica, 2015, p. 132). One critical question is what skills are actually needed to the citizen of the 21st century in order to cope with modern world challenges? How a student should be educated for a time “when individuals will be expected to think for themselves, pose and solve complex problems, and generally produce knowledge rather to reproduce it” (King, 1993, p. 30)? Human societies are confronted nowadays with huge complex challenges that cannot be addressed by isolated individuals’ actions. Where concerted group action is required to tackle complex problems, groupwork in blended educational settings could be a quite promising pedagogical model.

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