European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available on-line at: www.oapub.org/edu

DOI: 10.46827/ejes.v7i12.3418 Volume 7 | Issue 12 | 2020

PEDAGOGY STUDENTS' REFLECTIVE PRACTICE: A BLENDED LEARNING INTERVENTION

Charikleia Pitsou,
Niki Lambropoulos (Lampropoulou)[i]
Dr., Department of Education and Social Work,
University of Patras, Rio, 26504,
Greece

Abstract:
Authentic reflective practice in real working conditions acts as a bridge between the university environment with the engagement and responsibility of a professional. Educating the pedagogy students as teachers is one of the main aims of the Department of Education and Social Work Sciences, University of Patras, Greece. An intervention to support students' reflective practice with new technologies took place following the flipped classroom and collaborative learning approaches; 169 university students were registered in the associated online course. The course organization, the instructions and the educational material was provided via the course on eClass for the flipped classroom approach. Following collaborative learning methods, the students were divided into small teams, this is 20 students average for each group for teachers' shadowing and small groups of 3-5 for onsite meetings with tutors. Other than the students' reflective practice diaries, the tutors also kept observational note. A mixed-methods research design was utilized; the findings derived from an online questionnaire, the eClass logs, a focus group discussion, and tutors' observation notes. It appears that the blended learning intervention advanced students' reflective engagement and accelerated their learning and the teaching practice.

Η αναστοχαστική εκπαιδευτική πρακτική σε πραγματικές συνθήκες εργασίας λειτουργεί ως γέφυρα μεταξύ του πανεπιστημιακού και του σχολικού περιβάλλοντος στο πλαίσιο της πρακτικής άσκησης των φοιτητών/τριών. Η προετοιμασία των φοιτητών/τριών ως μελλοντικών εκπαιδευτικών είναι ένας από τους κύριους στόχους του Τμήματος Επιστημών Εκπαίδευσης και Κοινωνικής Εργασίας του Πανεπιστημίου Πατρών στην Ελλάδα. Στην παρούσα έρευνα μελέτης περίπτωσης πραγματοποιήθηκε παρέμβαση με συνδυαστική εκπαίδευση με σκοπό την υποστήριξη του εκπαιδευτικού αναστοχασμού των 169 φοιτητών/τριών που συμμετείχαν στο μάθημα της πρακτικής άσκησης. Συγκεκριμένα, υιοθετήθηκαν οι

[i] Correspondence: email xpitsou@upatras.gr, niki.lampropoulou@upatras.gr

παιδαγωγικές προσεγγίσεις της ανεστραμμένης τάξης και της συνεργατικής μάθησης με την υποστήριξη των νέων τεχνολογιών. Η οργάνωση του μαθήματος της πρακτικής άσκησης, οι οδηγίες και το εκπαιδευτικό υλικό ήταν αναρτημένα στο eClass. Ακολουθώντας τις μεθόδους και τεχνικές της συνεργατικής μάθησης οι φοιτητές/τριες χωρίστηκαν σε μικρές ομάδες, με μέσο όρο 20 άτομα σε κάθε ομάδα για την παρατήρηση και παρακολούθηση του έργου των εκπαιδευτικών στο σχολείο, καθώς και σε μικρές ομάδες των 3-5 φοιτητών/τριών για αναστοχαστικές συναντήσεις με τις ερευνήτριες. Επιπρόσθετα, οι φοιτητές/τριες διατηρούσαν ημερολόγια αναστοχασμού κατά την παρακολούθηση της διδασκαλίας. Οι ερευνήτριες διατηρούσαν, επίσης, παρατηρητικά σημειώματα. Χρησιμοποιήθηκε ο ερευνητικός σχεδιασμός μικτών ερευνητικών μεθοδολογιών και τα ευρήματα προέρχονται από δεδομένα που συλλέχθησαν με διαδικτυακό ερωτηματολόγιο, τα αρχεία καταγραφής eClass, τη συζήτηση ομάδας εστίασης και τις σημειώσεις παρατήρησης των ερευνητριών. Τα αποτελέσματα δείχνουν ότι η συγκεκριμένη παρέμβαση βοήθησε τον αναστοχασμό των φοιτητών/τριών και επιτάχυνε τη μάθηση στην εκπαιδευτική πράξη και έτσι, συνέβαλε στην επίτευξη των σκοπών της πρακτικής άσκησης.

Keywords: reflective practice, shadowing, blended learning, flipped classroom, collaborative learning

1. Preparing Future Teachers: The Reflective Practitioners' Module

Educating the pedagogy students as teachers is one of the main aims of the Department of Education and Social Work Sciences, University of Patras, Greece. The internships of the 7th semester are an independent compulsory course, with 10 credits. The main aim of this module is supporting the students in the school and provide feedback of their own educational process based on reflective practice. Teachers in Reflective Practice is a compulsory module; groups of 20 students are obliged to shadow teachers at the schools. As the students' studies have covered the theory and aspects of the educational profession, authentic experience connecting theory with practice is invaluable. Every week 20 students attend the school classes all week and work as assistants in all subjects except the foreign language (at least 5 teaching hours per day), at the Experimental Primary School of the University of Patras. They also attend all other school subjects. They shadow the primary school teachers, keep a reflective practitioners' diary and every week engage in reflective meetings with the tutors. On the fourth or fifth day, after consultation with the Teacher, they can teach a lesson to the class. This teaching, however, is not mandatory. They are actively engaged, helping the teachers and the students with their everyday educational activities. There is also a final reflective assignment each student must hand in. The students are graded by their participation and contribution in the educational process in the school (this grade is given by the classroom teacher), the feedback meetings and the final assignment they submit at the end of the semester. As part of the internship in the school, there are also meetings with the university tutors in

small groups or three to five students aiming at to supporting, analyzing, providing feedback, and evaluating the overall educational process. During the internship, students are required to transform and convert the theoretical knowledge acquired during their years of study into practice to enable the future teacher to answer individual aspects about their own teaching: design lesson plans; reflect, evaluate and correct their own work and evaluation ability.

As a reflective practitioner (Schon, 1987; 1983) every teacher/student engages in reflective thinking that originates in doubt, hesitation and embarrassment, situations that lead to new searches, through the recall of relevant knowledge and experience (Spalding & Wilson 2002). Reflection on educational practice is considered not only an integral part of the educational process but also a key factor in identifying, analyzing and solving complex problems. However, acquiring the ability to reflect is not an easy task, even for experienced teachers.

Many studies have been conducted about students in pedagogy reflective practice. Kettle and Sellars (1996) studied the development of third- year teaching students. Gibbs (1988) suggests that individuals develop analysis of feelings and evaluation of experience. According to Bartlett (1990), becoming a reflective teacher involves moving beyond a primary concern with instructional techniques and "how to" questions and asking "what" and "why" questions that regard instructions and managerial techniques not as ends in themselves, but as part of broader educational purposes.

For critical thinking, the future teacher deals with the application of rules as well as undocumented forms of action in school reality, and furthermore, as a reflective designer he enables and manipulates the learning process conditions (Chrysafidis, 2014). Critical reflection requires teacher candidates to continually examine their own thoughts, perspectives, biases, and actions. Reflective practice facilitates the development of new knowledge, skills, and dispositions in teacher candidates by fostering critical contemplation of actions in a real-world environment as in a related field experience in a K-12 school (Slade et al., 2019).

Lastly, shadowing is the process of following a student or educator through one day, part of a day, or longer, experiencing what that person experiences for the purpose of professional learning (Soguero et al., 2015). It is a subject-centered structured observation and, in this sense, allowed the student to follow teachers' activities to observe, analyze and criticize their approaches. Teachers can be regarded as 'shadowers' who gain clarity and awareness into the everyday educational challenges.

Based on the new technologies available at the University of Patras, as well as the students' own mobile devices, there was an effort to support the module with new technologies in 2019. During the intervention, an online course was designed and developed. The new technologies available was the eClass university learning management system and students' devices. Therefore, the initial hypothesis was: If the students would use a blended learning approach including the mobile technologies and the associated methodologies such flipped classroom and collaborative learning during their internship, they would advance in their onsite and online reflective practice.

2. Flipped Learning to Support Pedagogy Students' Reflective Practice

Flipped Classroom (Bergmann & Sams, 2012) was developed in the 1990s. Harvard professor Eric Mazur developed a "peer-to-peer" model that provided material for students to prepare and reflect before class. and then used the classroom to encourage deeper cognitive thinking through interaction with each other and teacher challenge. This 'classroom reversal' provides a learning environment for personalized guidance and guidance (Lage, Platt & Treglia, 2000). Providing students with the material to gain a basic level of knowledge and understanding prior to the classroom, teaching time can be used to deepen learning and develop higher-level cognitive skills, moving students away from passive learning and active learning and in addition to their collaborative and problem-based learning. Thus, the teacher orchestrates learning activities that make it easier for students to gain control of their own learning in self-organized learning management through personalized assessment.

It appears that flipped classroom does improve the academic performance of students as well as their engagement with the learning process (Flores et al., 2016). According to the researchers, the student ceases to be a passive element and develops key competencies such as: selection of information, teamwork, critical thinking, and self-management and self-assessment of the learning process. Additionally, the teacher mediates, offers support, and guides. The study points to the fact that the flipped classroom improves integration of concepts; participation and communication; students' interest in the course; integration of ICTs in the classroom; and academic results. Besides, the model allows for a change in the roles of both professors and students.

2.1 Collaborative Onsite and eLearning Partnerships: Small Groups and Pairs

Other than the methodology, this is the flipped classroom, the specific pedagogical approach needed t be in place for flipped classroom to be effective. Reflective practice occurs in the head of each individual student and needs to be externalized and discusses with their peers. In fact, cognition is a complex social phenomenon that occurs within the individual's head (Lave, 1988:1). It refers to intermediate variables that describe social interactions and their relationships with the conditions that facilitate learning. Because the intermediate variables are invisible, their observation and study are difficult. However, it is possible to study human activity and inference from this cognitive change. Activity in the form of discussion of shared experience has been considered an effective means for adult learning (e.g. Brown & Duguid, 2000). Other than the importance attached to socio-cultural learning, collaborative learning as well as passive and active participation are concepts related to university teaching and learning. Mezirow (2000), in his theory of transformative learning, proposed that adults were reflective, critical, and open to others' opinions; thus, active participation in groups was essential.

Two terms have been used interchangeably in collaborative learning history: cooperation and collaboration. Cooperation was the basis of sociability "*acting together, in a coordinated way at work, or in social relationships, in the pursuit of shared goals, the enjoyment of the joint activity, or simply furthering the relationship*" (Argyle, 1991:15).

(Johnson & Johnson, 1994 provide an overview on cooperative learning.) An attempt to propose a distinction between cooperation and collaboration was made by Teasley and Roschelle (1993:235): Collaboration is a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem. Cooperative work is accomplished by the division of labor among participants, as an activity where each person is responsible for a portion of the problem solving. UNESCO's definition embraces most of the concepts; collaborative learning occurs when learners work in groups on the same task simultaneously, thinking together over demands and tackling complexities.

Collaboration is the act of shared creation and/or discovery. Within the context of electronic communication, collaborative learning can take place without members being physically in the same location. (Technology & Learning definitions, UNESCO (n.d.)). Thus, shared creativity for new knowledge building is the ultimate collaboration learning target that can also be expanded to online settings. Working on shared tasks implies university students' participation and engagement.

According to Dillenbourg and colleagues (1996), the key to supporting collaboration is to find suitable intermediate variables to describe and support collaborative interactions and their relationships with the conditions that facilitate collaborative learning. Dillenbourg and colleagues (1996) suggested that the development of an understanding of collaborative learning began with the learner as an individual; then it moved to group learning in a more socio-cultural mode, and finally, expanded to the community. During the 70s and early 80s, research was focused on the individual's learning processes. The context of their interaction was a backdrop rather than the focus of research. When the group became the unit of analysis, the focus shifted to the social construction of knowledge; however, this was still based on studying individuals. In terms of empirical research, the focus was on comparative processes to establish whether and under what circumstances collaborative learning was more effective than learning alone. Because collaborative learning is inherently complex (Lambropoulos & Romero, 2015), it was almost impossible to establish causal links between the conditions and the effects of collaboration. In Piaget's early writings (1932), the potential productivity of peer interaction in relation to cognitive development was related to the achievement of concrete operational modes of thought in the early years. Egocentrism was the main obstacle to operational thinking and required its "decentralization". This is the ability to consider multiple points of view and multiple covering factors in each situation. One of the fundamental concepts that helped collaborative learning to evolve was the socio-cognitive conflict derived from the interaction with other learners because of decentralization.

The following model (Figure 1) is a process visualization of the proposed model. The students follow a circle of reflective practice activities both online and onsite.

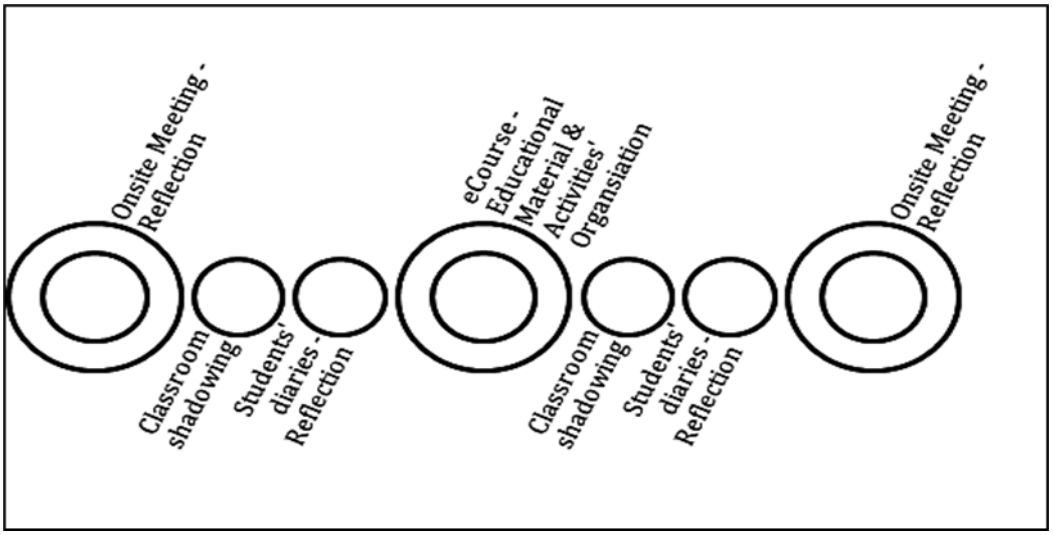


Figure 1: Blended Learning Reflective Practice

The students follow a collaborative learning for flipped classroom process that blends open and distance learning and onsite shadowing keeping diaries of reflection.

This intervention at the Department of Education and Social Sciences took place during the 7th Semester Practice following the blended and flipped classroom approaches (Lambropoulos, 2004); 169 university students were registered in the online course. The course organization, the instructions and the educational material was provided via the course on eClass. The students were also divided into small teams, this is 10 students average for each group for teachers' shadowing. They had the work collaboratively via both asynchronous eLearning using eClass and synchronous Skype for Business for teleconferencing, and onsite, this is the school classrooms. Authentic practice in real working conditions acts as a bridge between the university environment and the role of a student and the real working environment with the engagement and responsibility of a professional. The tutors kept observational notes along with students' peer observation and feedback. Such authentic practice may also act as a test for the students to discover whether they are really interested in the teachers' profession.

3. Research Design, Methods & Findings

During the 7th Semester 2019, 169 university students were registered in the online course and were randomly assigned in blended learning partnerships, such as small groups and pairs. The case study research intervention conducted was anchored in quantitative and qualitative research employing the following instruments: (a) a questionnaire at the end of the intervention with closed and open-ended questions, (b) a focus group of 5 randomly selected students was conducted to acquire the students' opinions about the advantages and disadvantages of the intervention, (c) logs and statistics provided by the eClass, and (d) tutors' observation notes at the university teachings. In research fieldwork (e.g. Suter, 2000), it is important to consider how relevant people do what they do, that is the 'interactional what' of their activities. This is the

explication of subjects' prior knowledge, this is what people must know to do work, and how that knowledge is deployed in the ordering and organization of work.

Eighty-five (85) out of 169 last year pedagogy students freely responded to the online questionnaire. The average age was 22 years old.

An online 4 Likert scale questionnaire was utilized to extract a clear view on positive and negative responses. Out of 85 responses, the majority of the students (88.2%, N=75) were between 18 and 22 years old, 9 (10.6%) between 23 and 40 years old and 1 (1,2%) over 51 years old. Most were women (84.7%, N=72) and 13 (15.3%) men; 51 (60%) from urban areas, 23 (27.1%) from semi-urban areas and 13 (15.3%) from rural areas. Most of the students (94%, N=80) were undergraduates, whereas 4 (5%) hold a second degree, and 1 (1%) had acquired a master's degree already.

The data were collected from the online questionnaire, the eClass logs, the students' observations and opinions and the tutors' observation notes. Such triangulation provided the necessary validity of the case study toward generalization of the results.

3.1 Quantitative Findings

According to the eClass logs (Appendix I), 141 students were registered online on the Reflective practice online class. There were 9 students' groups. Their overall visits were 8384, the total number of page views were 34877, and there were 2056 total hours online. Most of the online presence and accessing the educational material were during the months October 2019 and January 2020. Most of their visits and page views were related to accessing the educational material (37.8%), the educational sections area (25.2%) and the assignments area (19.6%). They did not use the forums much.

On the question about the new blended learning reflective practice (Graph 5.1.1), more than half of the students provided a positive response (95%, N81) and only 5% disagreed (N=4). The majority 81 (95%) of the students suggested that the cooperation with the coordinating tutors was successful (Graph 5.1.2).

On the question about the flipped content (Graph 5.1.3), 53 (86%) suggested that the content was clear and well organized whereas 12 (14%) disagreed. On the question about collaborative active observation and shadowing (Graph 5.1.4), the majority (85%, N=72) of the students agreed that it was effective and 13 (15%) disagree. Overall, most of the students (78%, N=66) responded that they thought their own reflective practice was productive (Graph 5.1.5) whereas 22% (N=19) were negative.

Regarding the overall effectiveness of onsite meetings to discuss both the reflective practice experience and the flipped educational material (Graph 5.1.5), most of the students (73%, N=72) found these meetings very effective. Also, the actual discussion (Graph 5.1.6) in the onsite meetings was found very effective by 73 (86%) students. On the actual reflective practice discussion (Graph 5.1.7) most of the students also suggested that it was overall effective (83%, N=71). The students had to write a final assignment about the reflective practice (Graph 5.1.8). Most of them (81%, N=70) suggested that the final assignment was helpful with the educational process. In total (Graph 5.1.9), most of the students found the overall reflective practice effective (90% N=76).

Most of the students (90%, N=76) advocated working in collaborative eLearning and onsite partnerships and in small groups and pairs in particular; there were no responses to totally negative experiences (Graph 5.1.10). In comparison to the previous results of absence of very negative responses, working in pairs (Graph 5.1.11) appeared to be effective with 13 (15%) to disagree and 5 (6%) to totally disagree. Similar responses referred to the online groups, with 12 (14%) negative responses and 1 (1%) totally negative response.

On the question about the learning management system eClass, many students (32%, N=27) found that it was not so helpful whereas the majority (62%, N=66%) found it useful. The overall eClass use and students' experience was rather satisfactory as 34 (40%) suggested they had an unsatisfactory experience.

To sum up, the students suggested that the overall course and the way they experienced it was very satisfactory and useful (91%, N=78).

3.2 Qualitative Findings

A. The questionnaire open questions responses were coded, and quantified qualitative analysis was conducted. There was also a small online focus group of 5 students randomly selected.

The qualitative results were extracted from the open-ended questionnaire questions and were quantified. In regard to the positive points on the collaborative learning partnerships in regard to small groups collaboration (Graph 5.1.16), the majority of the students responded with positive comments about the collaboration with strangers; then reflective discussion and feedback with their co-students; faster and easier communication as well as support and meeting new people. There were only 3 comments on both the negative students' experience reporting that the collaboration with a stranger was absent or overall difficult.

Compared to onsite learning, the students answered a question about the eLearning benefits (Graph 5.1.18). Most students suggested that guidance and support via eLearning was more immediate (32.3%), similarly to immediate and clear communication (19%), effectiveness (16%) and overall speedy organization (12%), as for example the questions answered in the forum so everyone could see the answers at any time (8%). Regarding the eLearning disadvantages, nothing (57%) was the most coded response. Responding with similar questions and information (17%) as well as changing the initial instructions were the most quoted responses (10%).

After a mutual coding agreement, quantified qualitative analysis was conducted. The students responded the following, related to the reflective practice benefits and the difficulties.

The module aims were highlighted from the student as the three major trends matched the module aims (Graph 5.1.20); collaboration in small groups was successful (N=39, 22%), constructive metacognition (N=29, 17%) and professional development (26, 15%), including issues related the school authentic experience environment (N=22, 13%) and to actual teaching (N=18, 10%). More responses revolved around theory in practice,

the pedagogical methods in practice, critical thinking, the personal communication with the tutors n small groups and overall course coordination.

As for the reflective practice difficulties (Graph 5.1.21), most students thought it worked (N=30, 31%), the specific assignment (N=18, 19%) was demanding and they had to conduct literature review (N=13, 14%) to match their observations with solid theoretical background. More information was needed (N=11, 12%) and better coordination was necessary (N=10, 10%). More issues were related to difficulty in attending the face-to-face meeting, critical thinking, time, stress, and use the eClass.

They also made recommendations about ways to improve the reflective practice for the future students (Graph 5.1.22). They suggested that more teaching is necessary at the schools (N=27, 28%) as well as more reflective practice days (N=16, 17%) in more schools, preferably close to their locations (N=15, 16%).Thirteen (13) suggested that the practice works as in the intervention (14%) and more responses were about the choosing their pair, more information about the overall module and assignment, and better coordination if this intervention is going to be adapted for next year.

B. The focus group discussion was analyzed, and quantified qualitative analysis was conducted. Positive students' comments were the following:

> *"The collaboration was good, excellent I would say. We did not have any problems to study and communicate together… We successfully completed the work and I personally had a satisfactory feeling with the result*." (Subject A)

> *"The organization and communication were much better… My team was focused on the students with special needs… I didn't like the online communication compared to the real communication but there are no options these days…The communication with the tutors was enjoyable." (*Subject B)

> *"We were a small group of 5 students, and we managed to get from the theory to the actual practice. We collaborated, if one had a different opinion, we discussed about it and kept it or deleted it or even corrected the issue. The collaboration was superb without tensions. The internet connection was not that good, and we worked with material both online and onsite…*(Subject C)

> "*Working with the internet was easier, we divided the tasks and each one worked on the allocated task."*(Subject D)

> *"We had fun and by coincidence I did know the students in my group. Collaborative work and learning are more fun. Collaborative eLearning was also fun as we had to work and organize from a distance*." (Subject E)

As for the disadvantages, the 2 most reported problems were working with strangers and difficulty to collaborate with strangers online.

4. Tutors' Observation Notes at the University Teachings

According to tutors' observation notes (Appendix III), although the flipped classroom model was overall successful, the students did not use their mobiles, laptops and tablets in the classroom although they were very active when it comes to social media i.e. they are used to use the applications for educational purposes. Initially, they were reluctant to actively participate in the reflective practice in the actual classroom even though the learning partnerships were observed to be very successful. However, when a couple of students started talking about the experiences and the educational material most students followed the discussion. Regarding the technology utilization, the low impact of technology was raised from the tutors' observation of a mismatch among the students' way of tools use and the functions for which the developers had planned them. In other words, the students did not fully utilize the tools available in eClass and the actual use in the onsite meetings in the classroom.

5. Discussion

There has been a shortage of research and examples on using the exact synthesis of pedagogical approaches, these are open and distance learning and flipped classroom as part of blended learning in reflective practice and collaborative learning in learning partnerships for students as teachers' reflective practice.

In this study, the results suggest the following: the overall course and the way the students experienced it was very satisfactory and useful; the new model based on blended learning reflective practice organization cooperation with the coordinating tutors was successful; the content was clear and well organized; the collaborative active observation and shadowing was a helpful reflective practice experience; own reflective practice and flipped educational material were productive both in online and onsite meeting discussion; lastly, the final assignment was helpful with their own educational process as professional teachers. In the open questions, there were positive comments on the collaborative learning partnerships and the collaboration with strangers, reflective discussion and feedback, faster and easier communication, better support and meeting new people. However, some students suggested that collaboration with a stranger and absent or difficult collaboration was difficult.

In addition, students believed that the eClass helped with the overall course organization, the guidance and support was more immediate similarly to immediate and clear communication, effectiveness, and overall speedy organization. For the questions answered in the forum so everyone could see the answers at any time.

The module and intervention aims were accomplished: collaboration in small groups, critical reflection, professional development in the school authentic environment, and rich teaching experience. As for the difficulties, most students suggested they were not any, and some had problem with the assignment, it was too scientific, too demanding and with bibliographical references. Therefore, they needed more initial information about the ways to write it.

The recommendations for the future students suggested that more teaching is necessary as well as more reflective practice days engaging more schools, preferably close to their locations.

Fidalgo-Blanco and colleagues (2017) worked on a blended learning course, synthesizing both the online and onsite environment using micro-flip teaching. In their findings it is reported that knowing a subject prior to being taught in class is a great advantage. With the MFT method, students can learn the subject theoretically before class. The method focuses responsibility on the students and enables them to apply what they have learned through classroom activities and concepts. In addition to knowing the subject, students can reflect on it and apply it to a real situation, which corresponds to cognitive development. Students suggested the importance and flexibility of accessing content when it is desired and as many times as necessary. Yilmaz (2017) found that e-learning readiness and its subfactors such as self-efficacy, internet self-efficacy, online communication self-efficacy, self-directed learning, learner control and motivation towards e-learning are predictors of student satisfaction and motivation. Online communication self-efficacy has positively affected satisfaction and motivation towards the course in FC model of instruction. According to Sohrabi & Iraj (2016) reported more communication with the instructor and that the flipped classroom can be implemented for different groups of students and can be used as a means to improve the learning experience. Overall findings indicate that students need to be engaged in learning, looking for new ways and environments different from the lecture-style classes. Although the students did not use it as much as expected, a forum for questions associated with classroom activities, thus attempting to minimise the time needed to answer any questions is significant (Fidalgo-Blanco et. al., 2017).

Following the observation notes, tutors' observation notes were similar to Johnson (2013). There is a frequent concern about the flipped classroom model is that it widens the digital divide. Students who have access to digital devices will over-perform students that have less access to digital devices. Also, the flipped classroom is a new form of lecturing, lectures are considerably shorter, and students can watch them at their own pace in desired time and place or with learning partners.

Overall, the overall results follow the recent research findings from similar blended learning flipped classroom implementations: it is overall helpful and satisfactory students' experience; organization, communication, collaboration and support between the students in their learning partnerships and with the instructors is immediate and more effective; e-learning readiness is an important predictor of satisfaction and motivation for flipped classroom implementation models; and it can be used in more diverse forms and circumstances that have been implemented in the past by different researchers.

6. Conclusions and Future Work

The aim of this article was to present a new model of the Reflective Practice module at the University of Patras that prepares a working force of teachers. Teachers in Reflective

Practice is a compulsory course provided to the last year students divided into: (a) an eLearning course; (b) groups of 20 students for one week of reflective observation and practice in the classroom; (c) assistance teaching and active engagement in the educational activities; (d) reflective meetings for each group with the course teachers; and (e) each student's final assignment on reflective practice. Based on solid theoretical frameworks, the tutors implemented a new model based on a blended learning approach. Flipped classroom and collaborative learning were engaged for educational organization and studying via the eLearning course in one reflective meeting where students used their own mobiles for reflective engagement. The sequence of the activities prepared in the online course in the given week was followed by the relevant shadowing and educational activities and active reflective practice during the next in-class meeting. In this case study, the contextual factors were considered as there was no control group to compare. In addition, the main Reflective Practice tutors are new at the University of Patras, so no previous experience was utilized for comparison. A mixed methods research design was implemented to conduct the actual research.

The results suggested that reflective engagement and accelerated learning were evident due to the eClass course and the flipped classroom; also, mobile eClass access was utilized for active engagement; lastly, digital literacy and more time in the classroom are needed for better results. As a result, implications from the case study and best practices are provided for similar reflective practice courses. The model presented here is easily transferable because it minimizes the effort required for implementation and because of its ease of implementation and the effectiveness of the results. The students believed that the blended learning flipped classroom model aided in the overall course organization and it was overall successful. Following Fidalgo-Blanco and colleagues' (2017) suggestion, such models may pose a problem in some cases because the administrative policies of the school or university may offer resistance to the idea of eliminating classroom hours and replacing these with other means such as eLearning partnerships and flipped classroom activities.

Therefore, other than the small-groups collaborative learning, peer learning was utilized for the pairing the students inside each classroom during shadowing. The students interacted with their pairs and learned from each other without any supervising authority in both formal and informal ways. They explored, discussed, explained, and criticized the classroom teaching and learning activities and developed skills in organization and planning, working collaboratively with others, giving, and receiving feedback and evaluating their own learning.

Collaboration in small groups was a favorite activity along with critical reflection. Such module aids the students to their overall professional development. More teaching is necessary and reflective practice days engaging more schools.

These insights have the potential to fundamentally alter a teacher's view of students, the learning environment, and the teaching practices in their own classrooms. The aims were to grasp the classroom heterogeneous context and, simultaneously, to understand the work process and its relations. This back-and-forth reflection was transcribed into classroom notes that were analyzed and discussed during our meetings

with the students. The notes were clustered in categories and used for students' assignments.

However, more studies with experimental or control groups, pre-tests and post-tests need to be conducted to better validate the results and generalize the conclusions.In future work it may be interesting to investigate the factors that improve collaborative learning as such in blended learning and flipped classroom approaches. As such, more research needs to be conducted on the proposed model for better validation and generalization of the results and implications for university tutors in education and policy.

About the Authors

Dr. Charikleia Pitsou studied Pedagogy at the National and Kapodistrian University of Athens. She completed her master's degree at the University of Patras in "Intercultural Education: Greek as a Second or Foreign Language" (2010). Afterwards, she did her doctoral thesis research in: "United Nations" Policies on Education for Human Rights (1995-2009). The application of the educational model of the "cognitive pyramid" to the Greek Teacher and Kindergarten Departments" (2013). Her research interests focus on Human rights education, Pre-primary and elementary education, International organizations policies, Higher education, Lifelong learning policies, Teacher education and training. She has publications in international journals, book chapters, as well as conferences. She works as Laboratory Teaching Staff, in the Department of Education and Social Work, University of Patras. Also, she teaches in the Hellenic Open University, and in the Higher School of Pedagogical and Technological Education (ASPAITE).

Dr. Niki Lambropoulos (Lampropoulou) is specialised in sociocultural learning with special interest in creative collaborative learning and eLearning, collaborative creative writing and storytelling using multimedia to support online learning small groups and communities (CSCL/Writing). She has a PhD from London South Bank University followed by Marie Curie postdoctoral research funded by the EU, and an MA in ICT in Education from the Institute of Education, UCL. She finished her BA at the Pedagogical Academy of Tripolis and University of Athens in Greece, has a Diploma in Education from Maraslio and over 25 years of educational experience in primary and higher educational levels. She works as Laboratory Teaching Staff, in the Department of Education and Social Work, University of Patras and has published widely in her fields of interest.

References

Argyle M, 1991. *Cooperation: The basis of sociability*. London: Routledge.

Bartlett L, 1990. Teacher development through reflective teaching. In J. C. Richards and D. Nunan (Eds.) *Second Language Teacher Education*. New York: Cambridge University Press, pp. 2002-214.

Bergmann J, Sams A, 2014. Flip Your Classroom. Reach Every Student in Every Class Every Day. SM. Retrieved from *Flip Your Classroom: Reach Every Student in Every Class Every Day*. Accessed 5 Mar 2020.

Brown J S, Duguid P, 2000. *The social life of information.* Boston: Harvard Business School Press.

Chrysafides K, 2014. The Role of Practical Exercises in Creating Appropriate Conditions for the "New School". Research in Education. *Hellenic Journal of Research in Education,* 1, (2) (89-106). ISSN: 2241-7303.

Dillenbourg P, Baker M, Blaye A, O'Malley C, 1996. The evolution of research on collaborative learning. In E. Spada & P. Reiman (Eds.),*Learning in Humans and Machine: Towards an interdisciplinary learning science.* (pp 189-211). Oxford: Elsevier.

Fidalgo-Blanco A, Martinez-Nunez M, Borras-Gene O, Sanchez-Medina J J, 2017. Micro flip teaching – An innovative model to promote the active involvement of students. *Computers in Human Behavior,* 72 (2017): 713-723.

Flipped Learning Network. 2012. *Improve student learning and teacher satisfaction with one flip of the classroom.*

Flores O, del-Arco, Silva P, 2016. The flipped classroom model at the university: analysis based on professors' and students' assessment in the educational field. *International Journal of Educational Technology in Higher Education* (2016) 13:21.

Gibbs, G, 1988. *Learning by Doing: A Guide to Teaching and Learning Methods*. Oxford: Further Education Unit.

Johnson R T, Johnson D W, 1994. An Overview of Cooperative Learning. In J. Thousand, A. Villa & Nevin (Eds.), *Creativity and Collaborative Learning*. Baltimore: Brookes Press.

Johnson B G, 2013. *Student perceptions of the flipped classroom*. Thesis for Master of Arts in Educational Technology. The University of British Columbia, The College of Graduate Studies. Retrieved from https://open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0073641

Kettle B, Sellars N, 1996. The Development of Student Teachers Practical Theory of Teaching. *Teaching and Teacher Education*, 12(1), pp. 1-24.

Lambropoulos N, Romero M, 2015. *21st Century Lifelong Creative Learning.* NY, USA: Nova Publishers.

Lambropoulos N, 2004. From the class to the e-class and back: blended learning in the Greek schools. In the Proceedings of the *1st National Conference for the Use of ICT in Education*. Scientific Society for the Valorization of ICT in Education, www.eeep.gr, 16-17 October, Athens, 2004.

Mezirow J, 2000. Learning to Think Like an Adult: Core Concepts of Transformation Theory. In J. M. a. Associates (Ed.), *Learning as Transformation* (pp 3-33). San Francisco: Jossey – Bass.

Piaget J, 1932. *The Moral Judgement of the Child*. New York, NY: Harcourt, Brace Jovanovich.

Plota D, Karalis T, 2019. Organization and implementation of a Flipped Classroom course in the Greek University context. *Educational Journal of the University of Patras*, 2019, 6(2), pp 53-61.

Schon D A, 1987. *Educating the Reflective Practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.

Schon D, 1983. *The Reflective Practitioner: How professionals think in action.* New York: Basic Books.

Slade M L, Burnham T J, Catalana S M, & Waters T, 2019. The Impact of Reflective Practice on Teacher Candidates' Learning. *International Journal for the Scholarship of Teaching and Learning:*13,(2), 15.

Sohrabi B, Iraj H, 2016. Implementing flipped classroom using digital media: A comparison of two demographically different groups perceptions. *Computers in Human Behavior*, 60 (2016) 514-524.

Soguero M, Condon D, Packard C, & Easton L B, 2015. Shadowing. In L.B. Easton (Ed.), *Powerful designs for professional learning* (3rd ed.). Oxford, OH: Learning Forward.

Spalding E, Wilson A, 2002. Demystifying Reflection: A Study of Pedagogical Strategies That Encourage Reflective Journal Writing, Teachers College Record, 104 (7), October 2002: 1393-1421. doi: 10.1111/1467-9620.00208

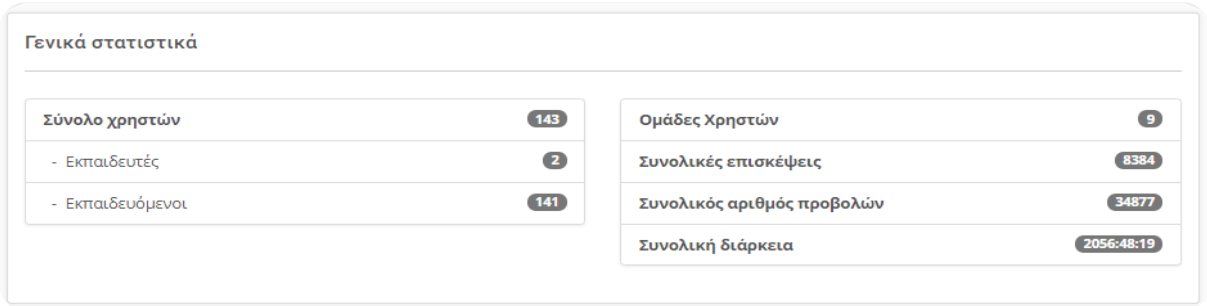
Suter E A, 2000. Focus Groups in Ethnography of Communication: Expanding Topics of Inquiry Beyond Participant Observation. *The Qualitative Report*, 5 (1&2).

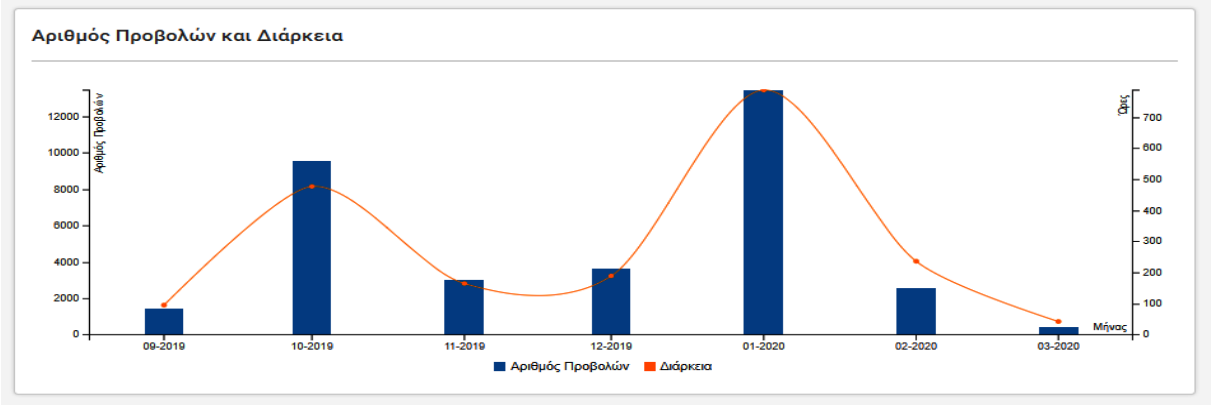
Teasley S D, Roschelle J, 1993. Constructing a Joint Problem Space: The Computer as a Tool for Sharing Knowledge. In S. P. Lajoie & S. J. Derry(Eds.), *Computers as Cognitive Tools*. New Jersey, NJ, USA: Lawrence Erlbaum Associates, Inc. Publishers.

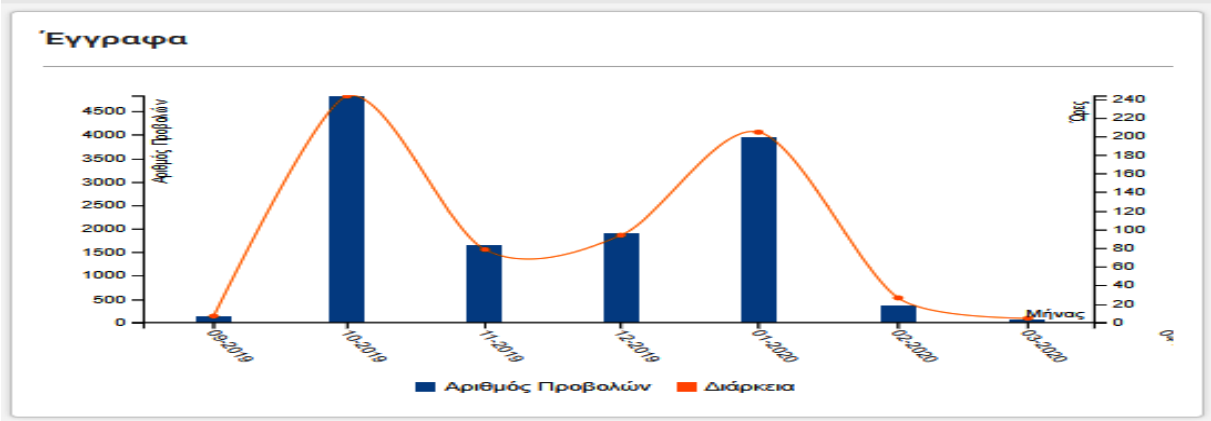
UNESCO (n.d.) Technology & Learning definitions: Collaborative Learning. Retrieved 12/07/2015,from http://www.unesco.org/education/educprog/lwf/doc/portfolio/definitions.htm.

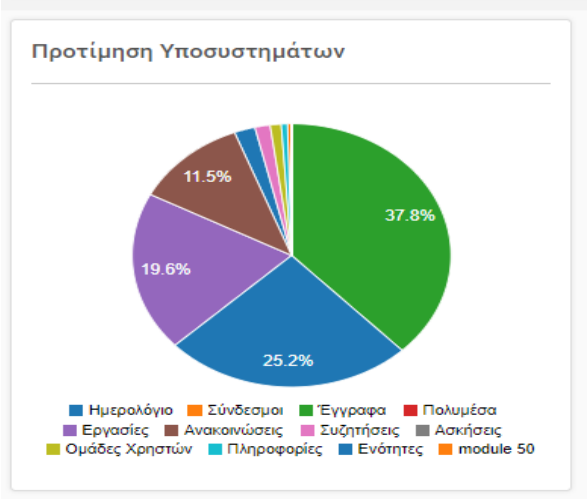
Yilmaz R, 2017. Exploring the role of e-learning readiness on student satisfaction and motivation in flipped classroom. *Computers in Human Behavior,* 70 (2017) 251-260.

Appendix I: eClass Logs

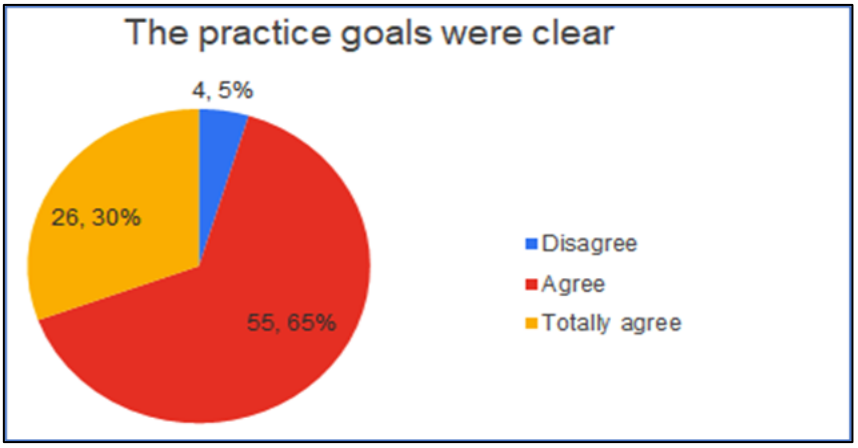




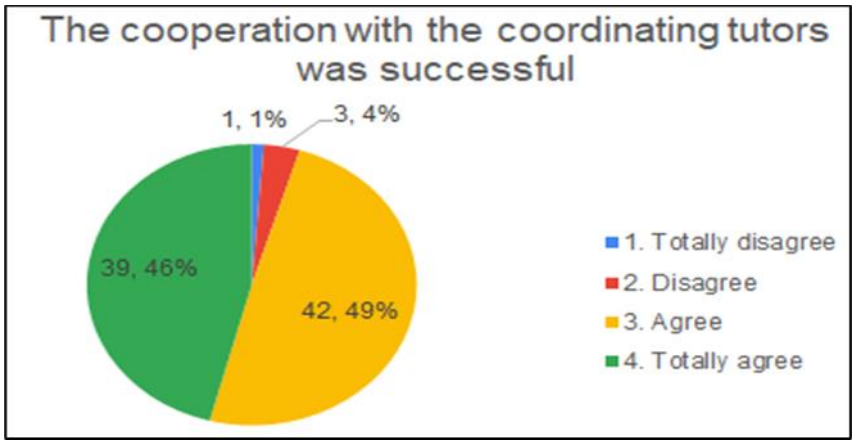




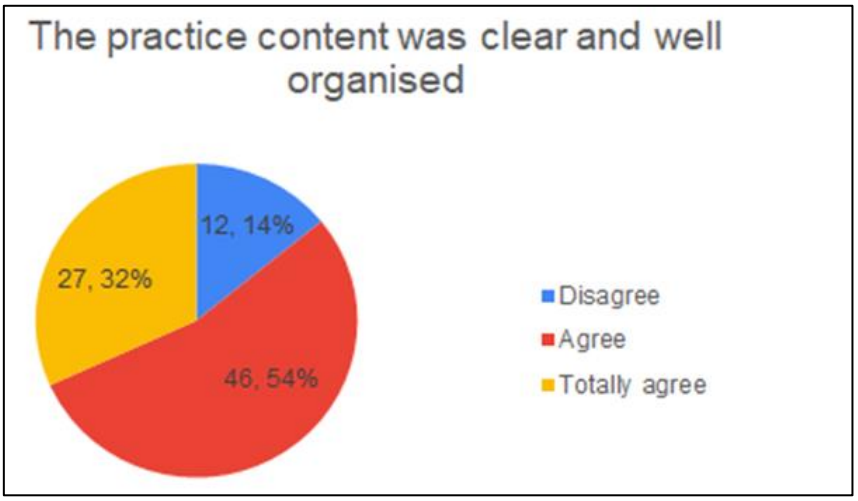
Appendix II: Questionnaire Results



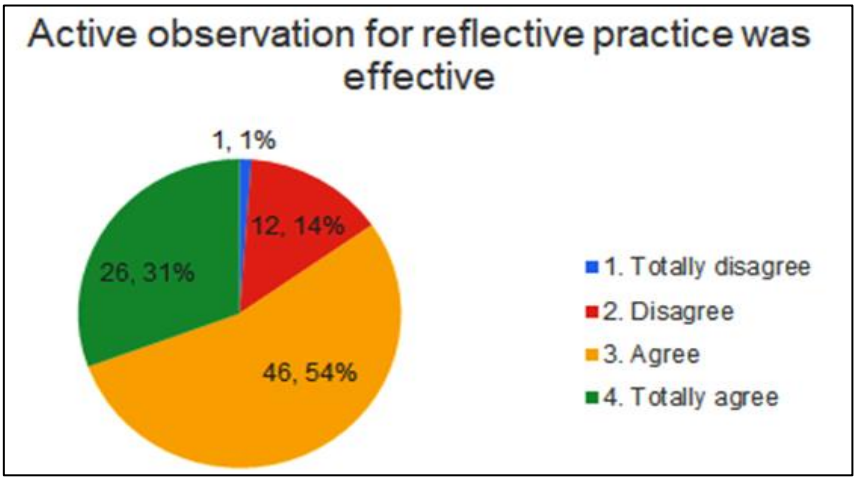
Graph 5.1.1: Clarity on Practice Goals



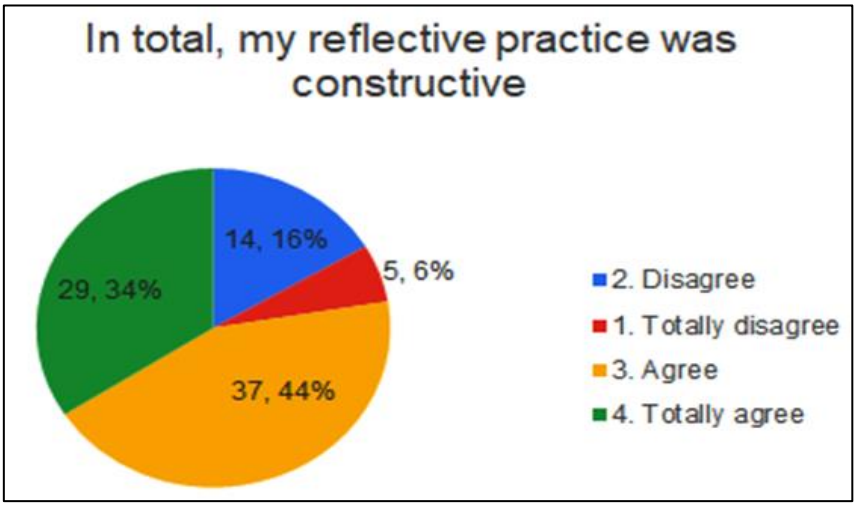
Graph 5.1.2: Successful Cooperation with the Coordinating Tutors



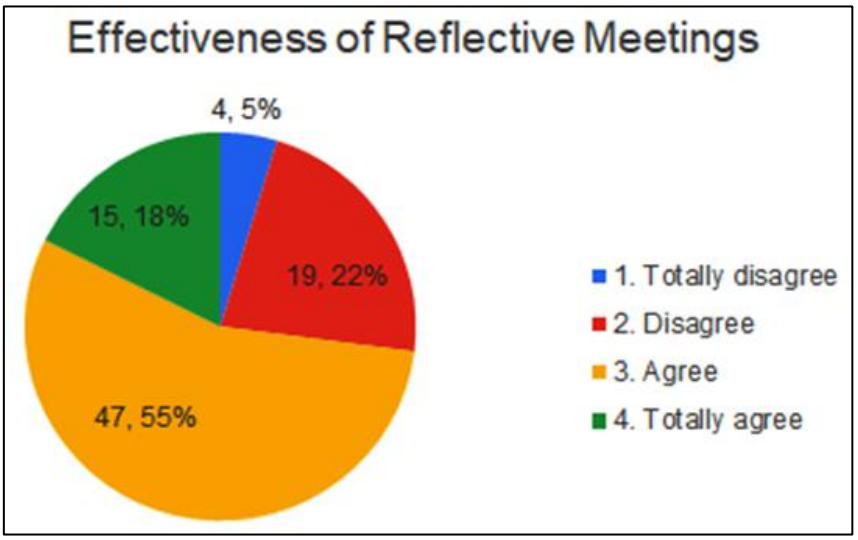
Graph 5.1.3: Clarity and Organisation of Practice Content



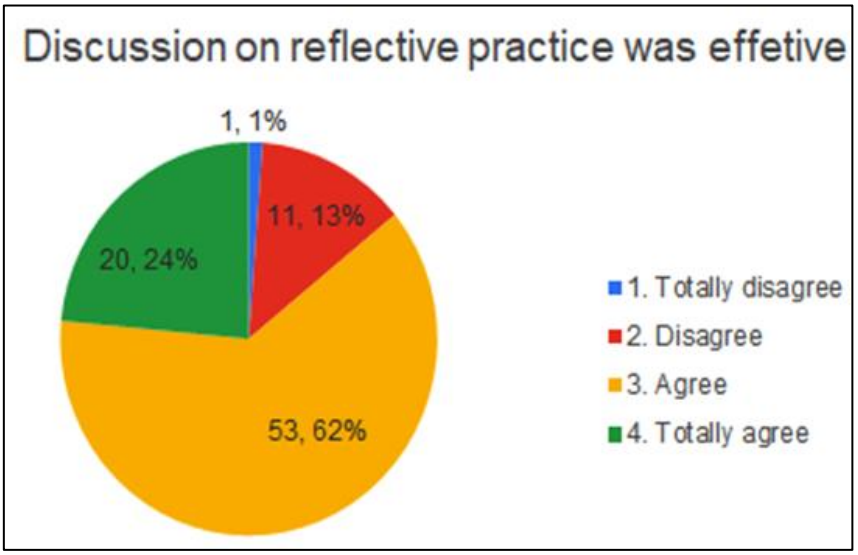
Graph 5.1.4: Effectiveness of Active Observation



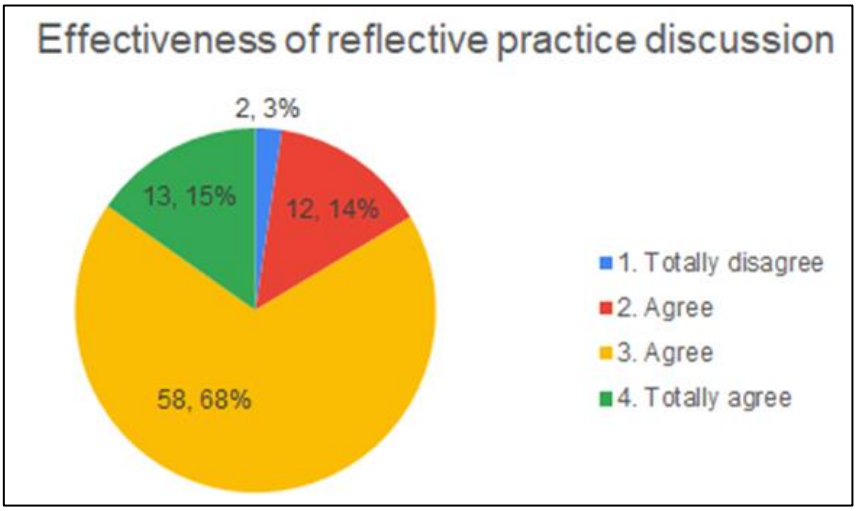
Graph 5.1.4: Reflective Practice Benefits



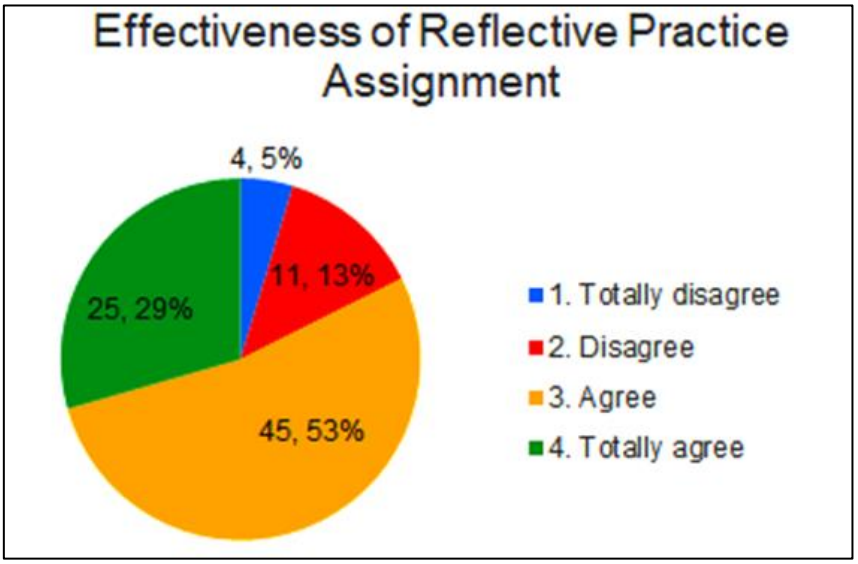
Graph 5.1.5: Effectiveness of Onsite Reflective Meetings



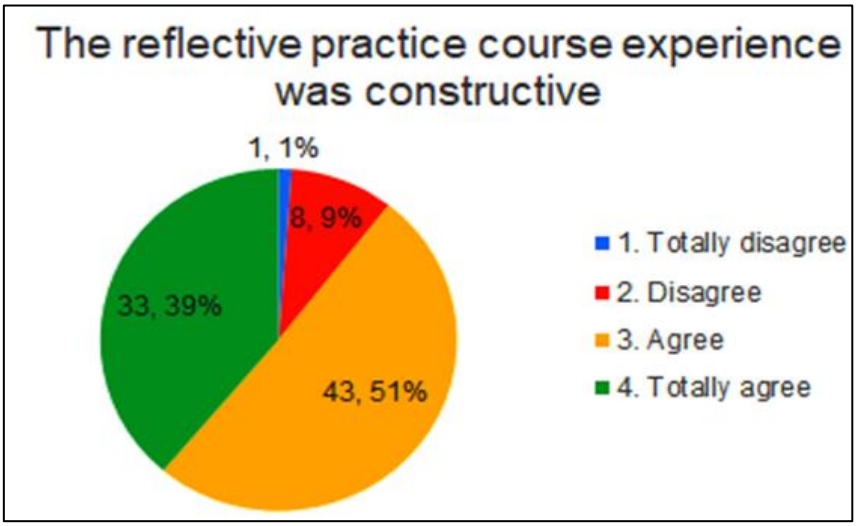
Graph 5.1.6: Overall Effectiveness of the Onsite Discussion



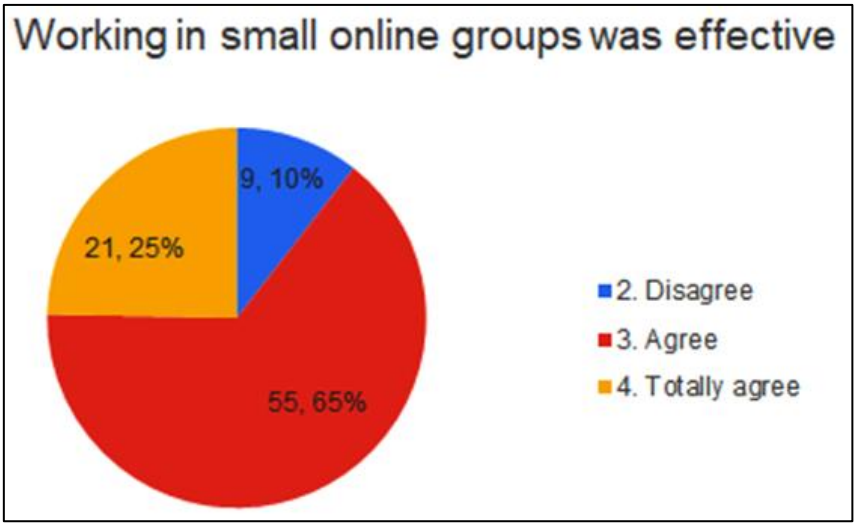
Graph 5.1.7: Effectiveness of the Reflective Practice Discussion



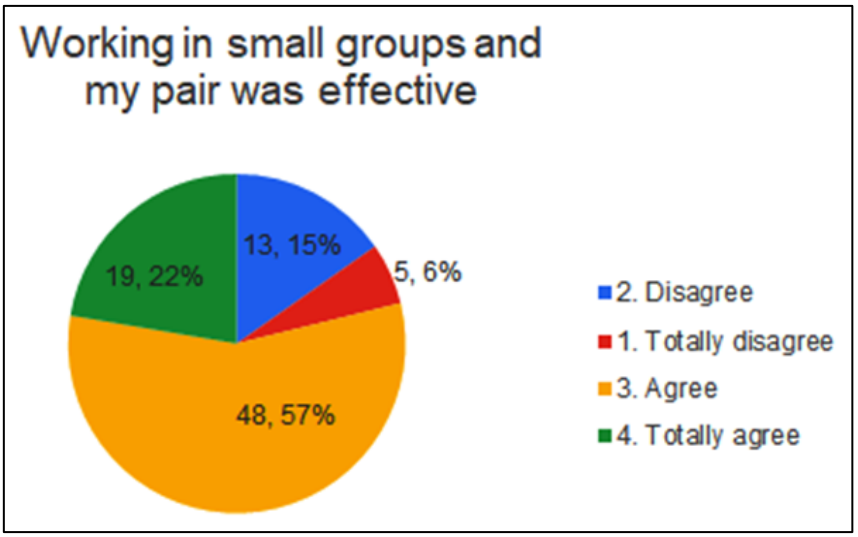
Graph 5.1.8: Effectiveness of the Reflective Practice Assignment



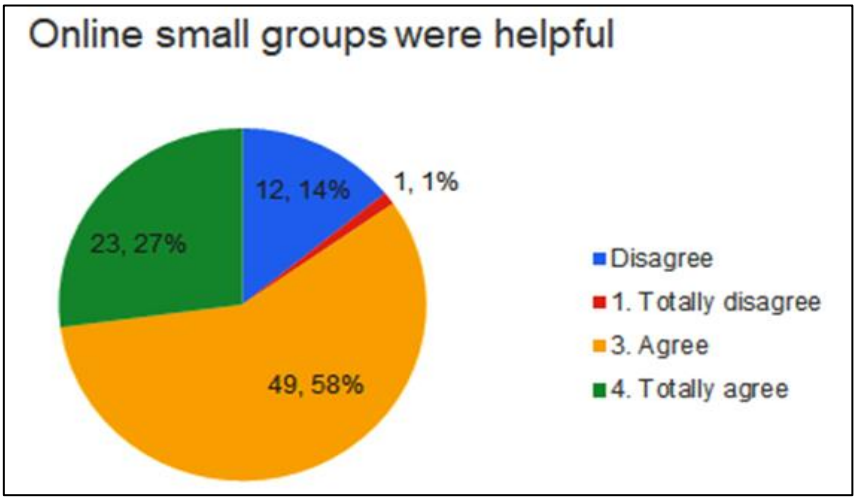
Graph 5.1.9: Reflective Practice Effectiveness



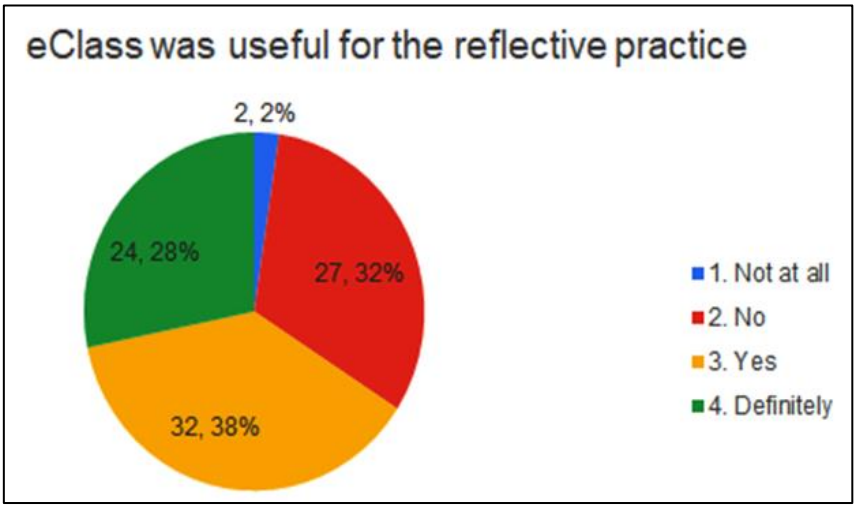
Graph 5.1.10: Effectiveness of Small Groups



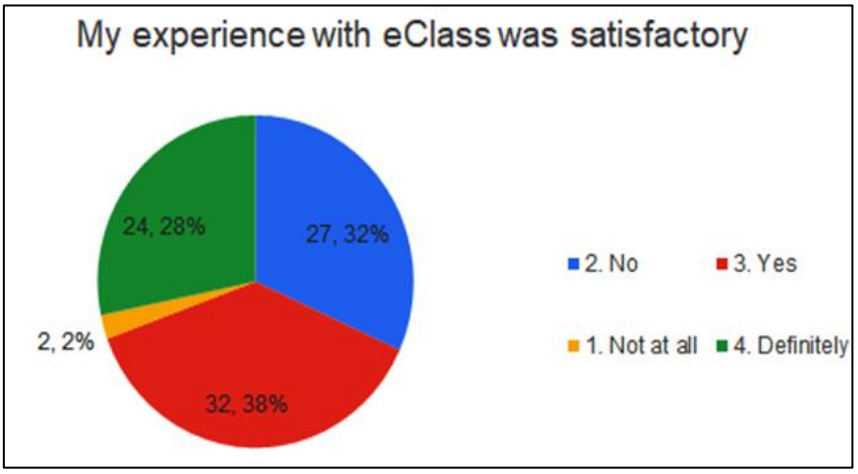
Graph 5.1.11: On Learning Partnerships



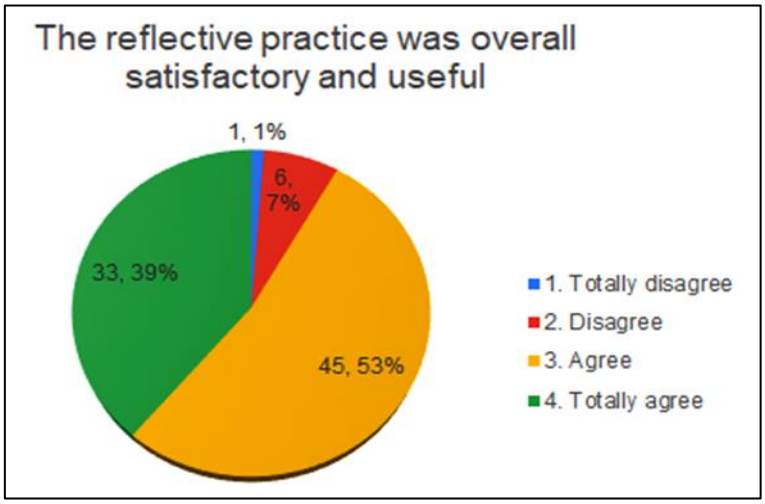
Graph 5.1.12: Online Small Groups Organisation Effectiveness



Graph 5.1.13: eCourse Effectiveness for the Reflective Practice

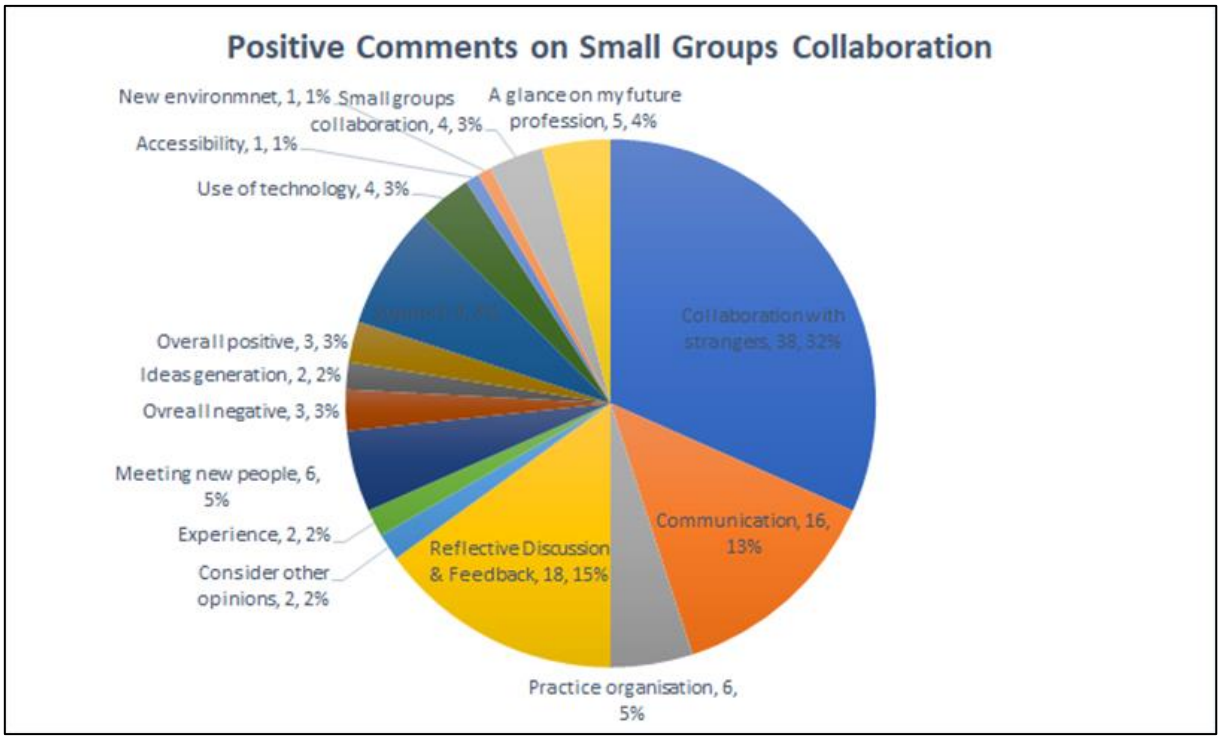


Graph 5.1.14: Overall eClass Students' Experience

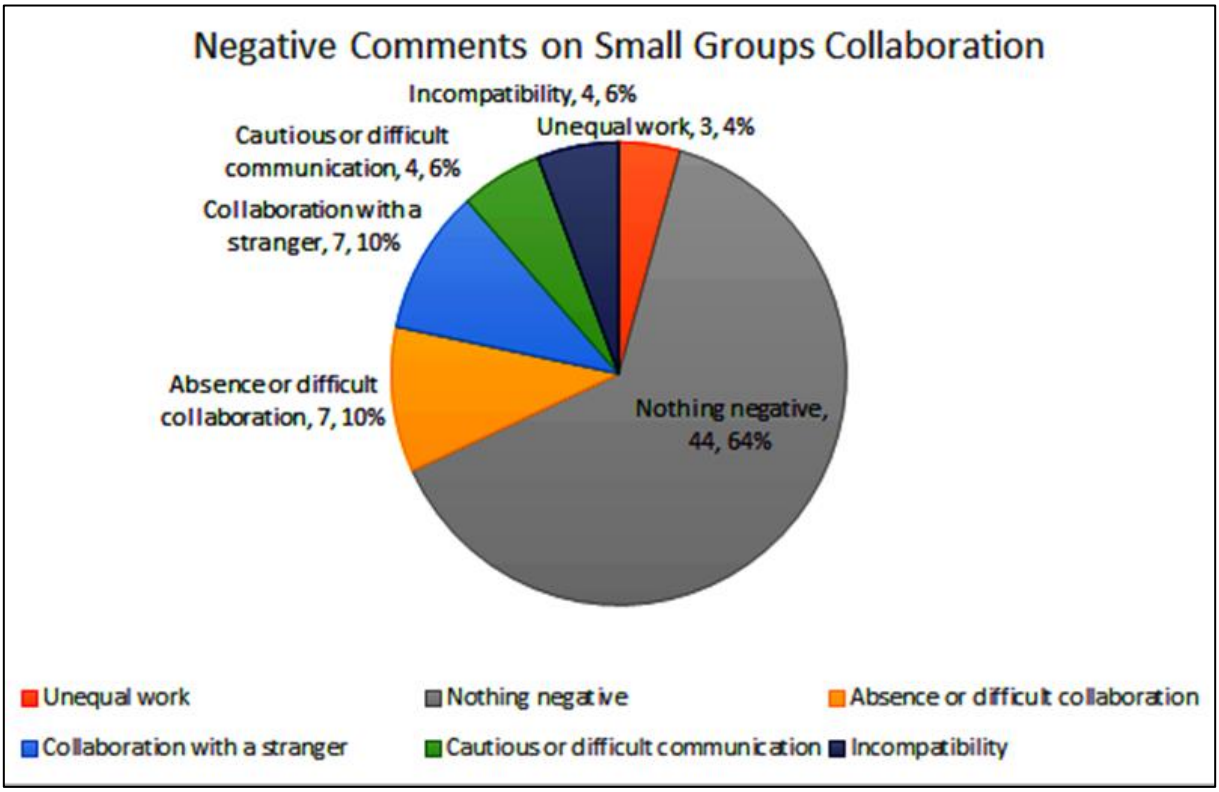


Graph 5.1.15: Overall Reflective Practice Course Experience

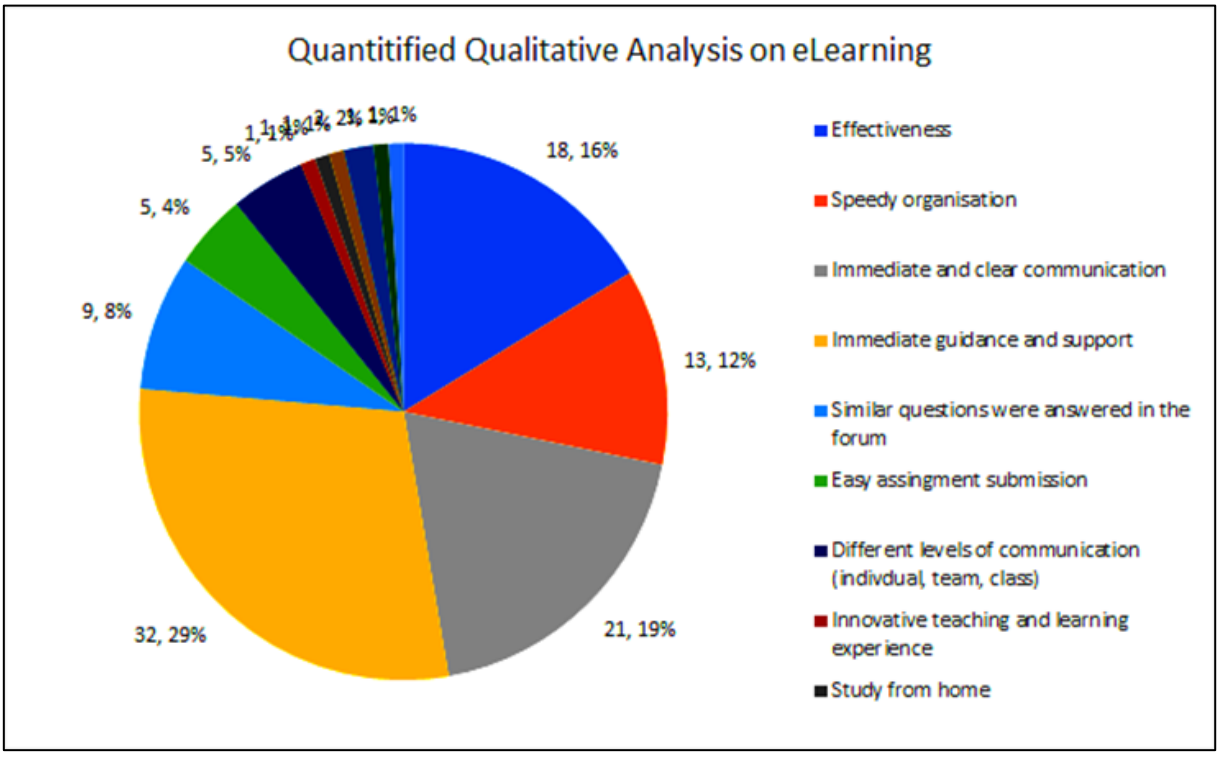
Appendix 3: Quantified Qualitative Results



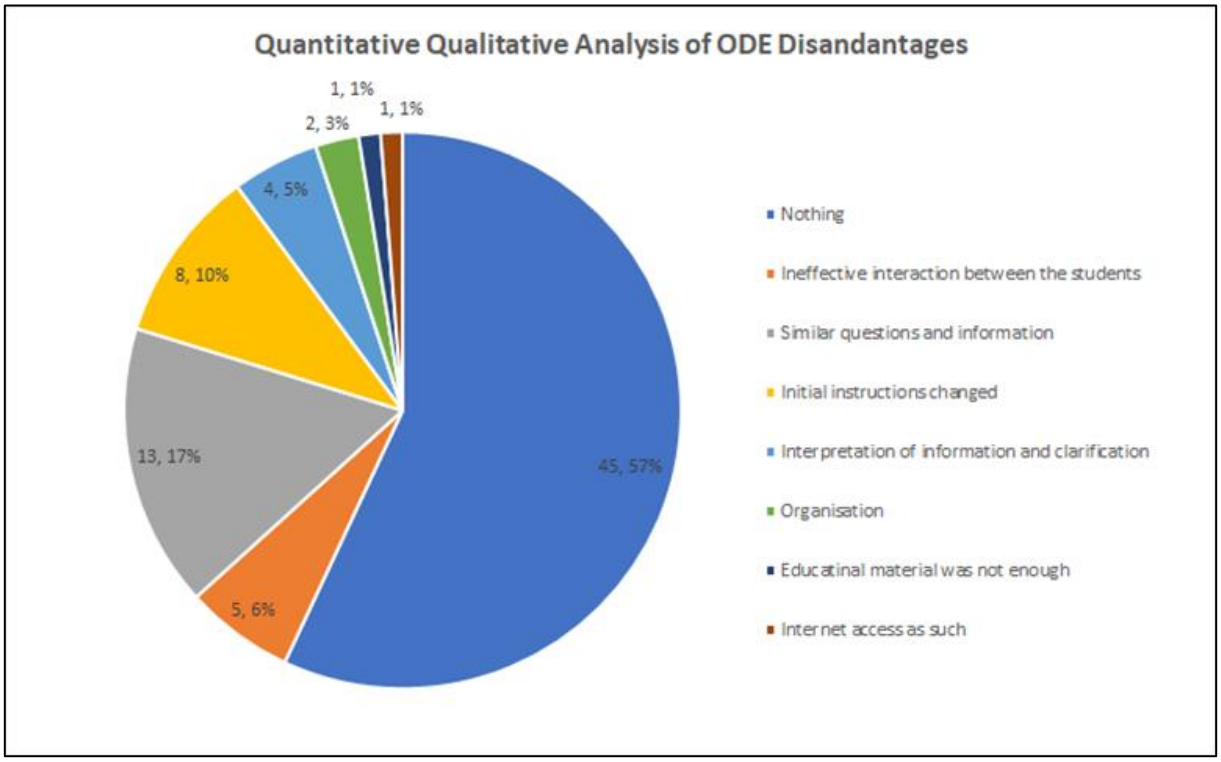
Graph 5.1.16: Positive Comments on Small Groups Collaboration



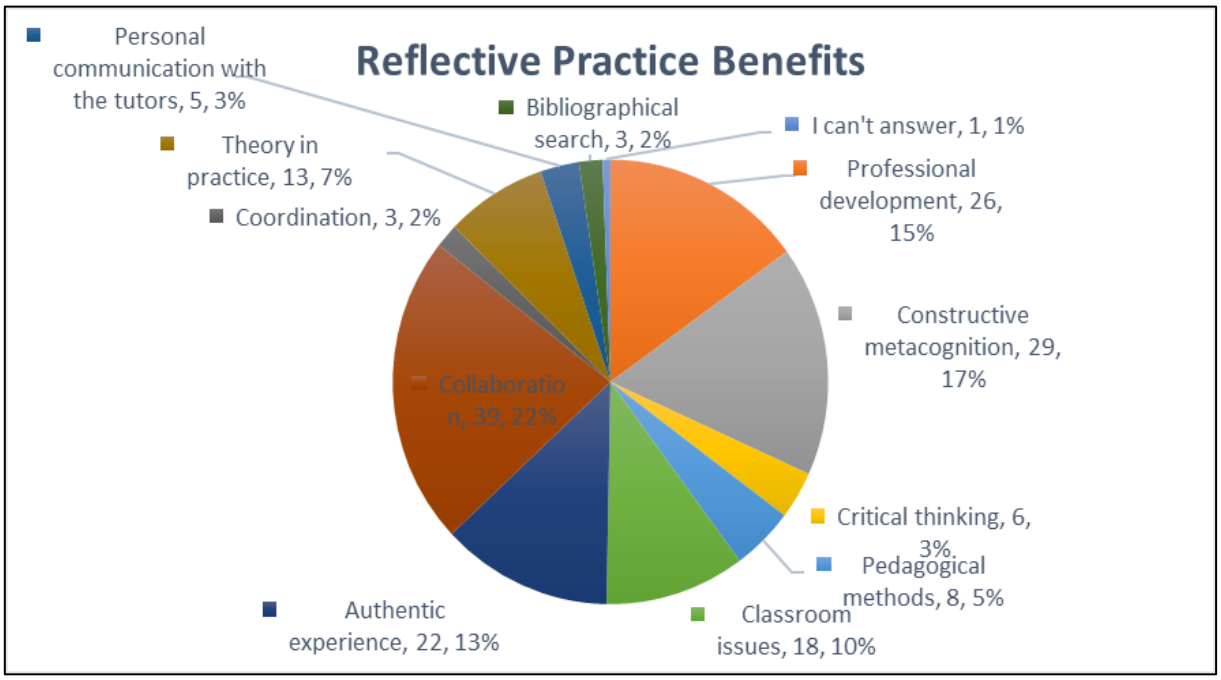
Graph 5.1.17: Negative Comments on Small Groups Collaboration



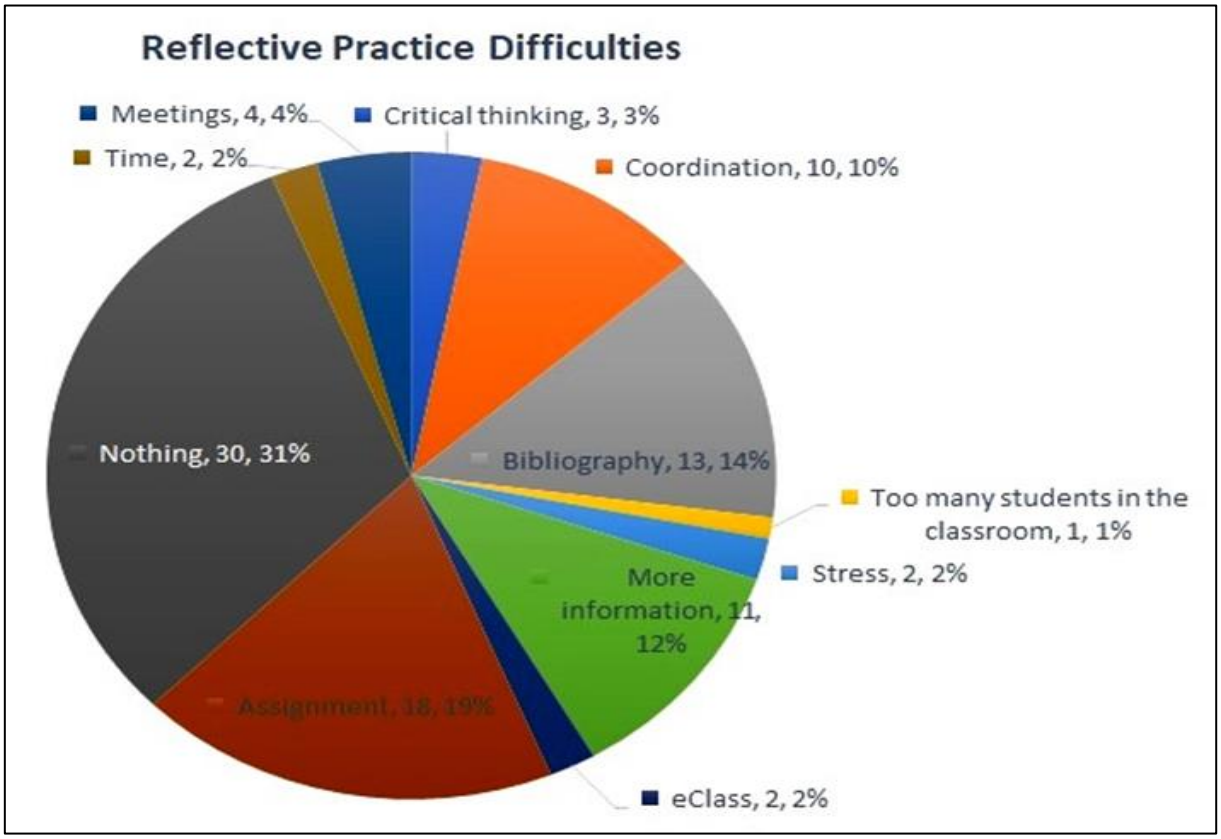
Graph 5.1.18: Quantified Qualitative Analysis on eLearning Advantages



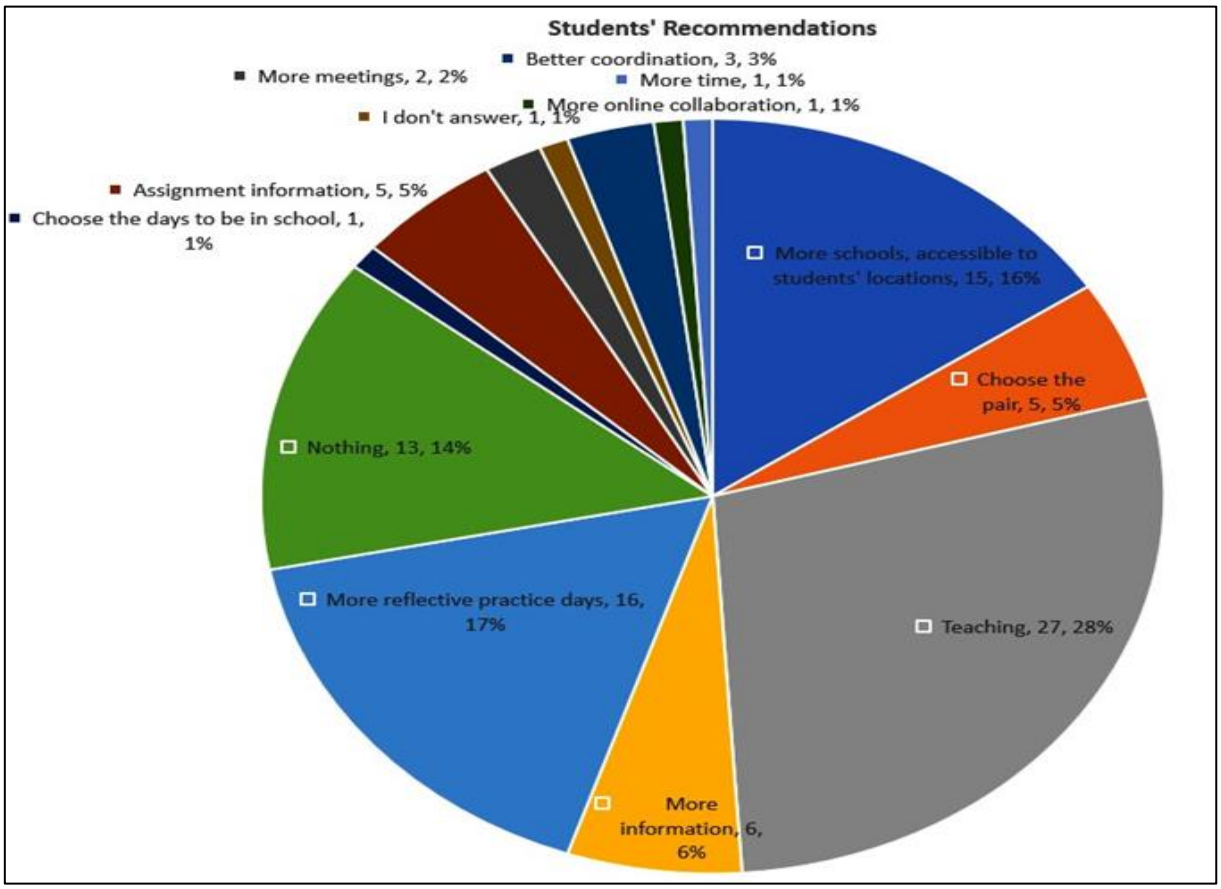
Graph 5.1.19: Quantified Qualitative Analysis on eLearning Disadvantages



Graph 5.1.20: Reflective Practice Benefits



Graph 5.1.21: Reflective Practice Difficulties



Graph 5.1.22: Students' Recommendations for the Future Course

Appendix 4: Tutors' and Students' Observation Notes Reports

OBSERVATION REPORT		No.
Name (Optional)		

	Description of activity	Comments
1		
2		
3		
4		
..		