Innovación Educativa en el ámbito de las TIC y las TAC

Proyectos, Métodos y Herramientas para el Futuro de la Educación

Grupo de Aplicaciones Tecnológicas para la Enseñanza de las TIC (ATETIC)

Universidad de Las Palmas de Gran Canaria

ATETIC

ULPGC • UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA

Coordinadores:

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Carlos M. Travieso González
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Flipping the academic classroom: insights from an action-research in humanities

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ABSTRACT

This paper makes a case for the implementation of the flipped learning model in higher education humanities classes. While there is extensive evidence on the effectiveness of such a method in science classes where it was first introduced, the practice of reversing the traditional learning model in humanities is still poorly discussed in research literature. Based on a *participatory action-research* approach, the paper explores two applications of the *flipped instructional model*: one in relation to skill-oriented classes on language teaching methodology, the other in relation to content-oriented theoretical literary studies. Both case studies have been conducted with medium or small-sized classes of undergraduate students in an Italian academic environment. The research design was qualitative: data have been collected through a semi-structured students' survey, from which an overall picture of the effectiveness of the flipped instructional model has been discussed and evaluated. Findings indicated a highly positive appreciation of the efficacy of the flipped strategy in enhancing learning outcomes, cognitive awareness, communication and interactive skills. These research findings are all the more remarkable if we take into account the dominant teacher-centered educational culture of the Italian academic setting. Students' satisfaction and engagement with the flipped learning method is therefore proof of the potential benefits inherent in reversing the classroom and shifting the educational paradigm in the humanities.

Keywords: Flipped classroom, interactive learning, humanities, flexibility, students' perception

1. INTRODUCTION

Flipped classroom is on the rise in higher education as a pedagogical methodology to enhance students' engagement and motivation in the learning process. Reversing the traditional model of in-class lecture by anticipating reading and homework has proved a valuable practice to enhance learning outcomes and satisfaction. This pedagogical approach is particularly well-suited to science courses where it has been adopted for decades (chemistry, medicine, engineering, biology, information technology etc.), increasing the effectiveness of the learning process. Evidence-based literature has shown the impact of science flipped classroom on students' course completion and grading as well as on their overall academic performance [e.g., 3, 14] (see (§ 2). Whereas humanities courses still lack a consistent examination of the advantages and challenges of flipped learning, especially with reference to content-oriented teaching or English Medium Education (EME) courses.

In the proposed paper we will examine and discuss two applications of the *flipped instructional model*: one in relation to skill-oriented classes on language teaching methodology, the other in relation to content-oriented theoretical literary studies. Both case studies have been conducted with medium or small-sized classes of undergraduate students in an Italian academic environment. Some classes were mixed groups of local and international Erasmus students, offering the opportunity to explore different learning reactions to the teaching method and evaluate its efficacy.

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2. FLIPPING THE CLASSROOM AT UNIVERSITY

Research on flipped classroom has grown extensively over the past decade, resulting in a large number of articles, as well as literature reviews and meta-analyses with different objectives [e.g., 20, 23, 16, 24, 3]. Consequently, the definitions of flipped classroom in educational research literature vary widely. While some definitions emphasize the use of digital technologies [2, 5], others focus on the interactive nature of classroom activities [1], whereas some others point out the importance of using a particular pedagogical approach, such as *mastery learning* [4] or *collaborative learning* [11].

The flipped lesson is 'inverted' because it reverses the usual order of teaching time: traditionally, in an academic setting information is obtained in a frontal lecture and then studied at home. On the contrary, in a flipped lesson, students study at home first and work in the classroom afterwards, together with the teacher. The emphasis, therefore, falls on the inversion of the work-at home/work-in-class times. Moreover, in the flipped lesson information is gathered by students through a free exploration of heterogeneous materials pre-selected by the teacher, then is transformed into knowledge by face-to-face in-class interactions.

2.1.1 Flipped Classroom as Episodes of Situated Learning

The meaning of FC we adopted is closer to the methodology of Episodes of Situated Learning (EAS) [17, 21]. The lesson is not only reversed in terms of time and space, but also the teaching actions are flipped, namely what the teacher does and what the students do. Following the EAS framework, a FC sequence can be divided into three main phases:

- an *exploratory phase*, in which the teacher stimulates the students' curiosity towards the new topic and allows them to freely explore the pre-selected learning materials (e.g., written texts, audiovisuals, images, podcasts, maps, online resources, etc.);

- an *operational phase*, in which the information gathered in the first phase is used to support the production of an artefact, through work in small groups;

- a *final debriefing phase* in which the developed artefact is critically discussed through classroom presentation and debate.

This three-pronged approach represents a particular declination of a common model shared by various active methodologies, which are based on the phases of *activation, production, elaboration*.

In the activation or *exploratory phase* the teacher problematizes a theme, outlines its contours, and provides some perspectives for its analysis, then asks students to work out their own strategies for proposing a solution [7]. The activation phase thus naturally entails multimodality, favouring cognitive flexibility as well as the multiplication of access points to knowledge.

The concept of flipped learning, particularly in the post-pandemic era, becomes a useful declination of *blended instruction*, since it implies the use of technology to make learning materials available and let students carry out learning activities before discussing them in the classroom with their teachers and peers.

This perspective has notably informed the activities carried out in the workshops on "Language and Culture Teaching Methodology" (§ 4.1) and on "Theories and Methods of Comparative Literature" (§ 4.2).

3. METHODOLOGY

Our case studies are based on a *participatory action-research* [19] conducted over the last 2 academic years at the Department of Humanities, University of Macerata. Participatory Action-Research (PAR) "legitimizes and prioritizes the expertise and perspectives that come from lived experience and situated knowledge, particularly among those that have been historically marginalized. In education research, a PAR approach typically centers the wisdom and experience of students (or school-age youth) and educators, positioning them as architects of research rather than objects of study." [13: 1].

In line with what the wide literature on this topic suggests [6, 8, 22], our PAR made use of qualitative data collection tools such as teachers' field notes and diaries, as well as students' surveys and artefacts.

In-class observation was carried out in two different courses over a period of 2 years:

1) the workshop on "Language and Culture Teaching Methodology", taught in Italian within the BA programme of Foreign Languages and Cultures (mainly 3rd year students).

2) the workshop on "Theory and Methods of Comparative Literature", taught in English within the BA programme of Modern Literatures (mostly 2nd and 3rd year students).

During the academic year 2023-2024, the teacher's *participant observation* was complemented by a survey to verify the students' level of satisfaction and other assets of the workshop piloted. The survey consists of 10 questions: 5 multiple-choice questions and 5 open-ended questions with short answers.

The data collected are presented and discussed below in order to identify strengths and weaknesses of applying a FC approach in the academic teaching of humanities.

4. RESEARCH AND FINDINGS

4.1 Workshop 1. "Language and Culture Teaching Methodology"

Twenty-five students initially enrolled in the course on "Language and Culture Teaching Methodology" in the academic year 2023-2024: 88% of them were attending the third year of the BA in Foreign Languages and Cultures, while two students took part in the course thanks to the international mobility programs. Part of the course was devoted to a workshop concerning the relationship between foreign language learning/teaching and intercultural communication.

Students were asked to divide into groups of 3-4 people and select a specific topic from those provided by the teacher. Despite some initial reticence due to the novelty of the methodology proposed, the students responded very positively to the assignment. In fact, almost all students (24 out of 25) accepted the challenge and participated actively in one of the 7 working groups (WG) who had to complete the tasks related to a pre-defined topic through a collaborative approach: 1) Teaching non-verbal communication; 2) Teaching paralinguistics; 3) Teaching pragmatics; 4) Teaching grammar in intercultural perspective; 5) Teaching vocabulary in intercultural perspective; 6) Teaching cultural knowledge; 7) Assessing intercultural knowledge.

Each WG was given instructions and a starting list of sites and references to gain a deeper knowledge of the assigned topic. Most of the materials and activities were provided on the course online platform. The objective of the different WGs was to produce an artifact (a multimedia presentation or a teaching activity) they had to present to their peers at the end of the course. Each artifact had to include an empirical part or case study on the given topic, e.g., collecting data by means of short interviews or online surveys, Internet searches, textbooks analysis etc. Each week the workshop focused on a specific topic being explored by the various WGs: the members of the relevant WG were in turn invited to animate the workshop in collaboration with the teacher and to share their opinions and findings on the assigned topic.

We report below the main outcomes of the survey conducted at the end of the course "Language and Culture Teaching Methodology" held in the academic year 2023-2024, pointing out that only 15 out of 25 students took part in the survey.

The responses provided by the students allow us to highlight some important assets of the workshop. The link between theory and teaching practice is considered the most effective feature of the course (38%), while the collaboration with other fellow students (30%) and the class discussion on the topics covered (19%) are also regarded as added values.

As far as critical points are concerned, most of the students stated that the development of the case study is an issue to be addressed (67%), revealing that it would be helpful to provide more information or examples on how to design and implement it. Also, the time assigned to complete the tasks is perceived as an improvable aspect (27%). Surprisingly, some other students claim that collaboration with their peers was a critical point instead of an asset (13%), showing that peer collaboration is not perceived by everyone in the same way or that not all groups worked equally well.

Most of the students (87%) declared that the out-of-class reading and activities had been *extremely relevant* for improving their in-class participation, whereas some of them (13%) pointed out that although they were *relevant*, they were not essential for this purpose (see Fig. 1). However, all the students (100%) found in-class discussions and activities *extremely helpful* for the understanding of the discipline (see Fig. 2).

Fig. 1. Relevance of out-of-class readings/activities

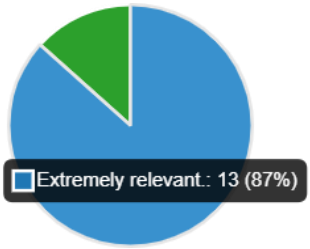


Fig. 2. Relevance of in-class activities

In question n. 9 (Q9) the students were asked whether the methodology used in the workshop offered them an intellectual change. All of them answered positively giving some valuable insights on its efficacy:

- "Yes. I am not used to this type of teaching methodology, so I had to get used to it, but it was interesting and much more stimulating to learn this way." [Q9, Ref. 6]
- "Yes, the research of case studies was actually an intellectual challenge since it was a concrete activity, not just passive study." [Q9, Ref. 8]
- "The course helped me to approach to a new theme with different methods. I felt more interested then in a normal course." [Q9, Ref. 9]
- "Yes, because we analyzed things I had never analyzed before, for example the exercises in school textbooks" [Q9, Ref. 12].

Although the FC approach is sometimes perceived as challenging, the students have mostly appreciated it as it gives new stimulus to teaching and, therefore, to learning. Students feel more involved in teaching practices and become an active part of the learning process, which turns out to be more stimulating and interesting.

The answers to the last question (Q10: "What aspects of the course do you think could be improved?") confirm the need to closely link theory and practice (see ref. 7, 10), an important aspect in a workshop which intends to develop students' teaching skills. It is also noteworthy that some students are interested to deepen their understanding of the FC methodology (see ref. 6) as well as the digital tools (see ref. 8) that were used during the workshop.

- "It could be improved by further exploring the flipped classroom method." [Q10, Ref. 6]
- "Some concept can be described with better examples." (Q10, Ref. 7]
- "Teaching the use of the main technologies and computer programmes employed during a class and showing how to organize a class would make the course totally satisfying." [Q10, Ref. 8]
- "More real-life examples to aid students to a better understanding of the subject." [Q10, Ref. 10]

Overall, the collected data confirm the validity of the applied methodology: the in-class and out-of-class activities were perceived as enriching and stimulating, although the design of case study and the timing of the activities are still to be improved.

4.2 Workshop 2. – "Theories and Methods of Comparative Literature"

This workshop is an English Medium Education (EME) elective course which is part of the University's aim to internationalize the higher education classroom by offering selected content courses in English. It is a new option for students enrolled in the BA degree in Italian Literature with a minor either in Classics, History or Modern and Contemporary Literature. It has been offered only in the past two years: 6 students have enrolled in the first year (2022/23), of which 1 on Erasmus mobility; 5 students in the second year (2023/24), of which 2 on Erasmus mobility. All three international students did not come from English speaking countries. No students had specific learning needs.

The workshop is conceived as an introduction to the main topics and questions of the broad field of comparative literature and has a distinct theoretical core, hence the most challenging task for the teacher is to be able to spark an intellectual interest in issues that are mostly unknown to undergraduate students and can appear difficult or too abstract. Pre-class readings and activities are envisaged precisely with the aim to familiarize the students with the theoretical topic that will be explored and discussed in class. Each class is organized around a core topic on which students are required to read platform-delivered materials in advance and answer a set of open questions (max. 5). The pre-class materials can also include videos and podcasts, always accompanied by some written production aimed at guiding students' comprehension and encouraging their analytical skills. Pre-class activities must be completed and submitted by the students through the online platform.

In-class activities are aimed at adjusting, revising and expanding students' pre-class assignments, and more importantly have the objective of turning information into critical knowledge. In-class work normally includes: 1. the construction of a visual map and the comparison with the one provided by the instructor, showing the interrelations among the main notions and issues at stake; 2. the discussion and arguing of one's position on specific problems posed by the instructor; 3. the writing of a brief text in the form of a Wikipedia entry (e.g. the definition of a subfield of comparative literature such as thematology, imagology, digital humanities or the construction of the biography of a comparatist, etc.); 4. a final discussion mediated by the course instructor through which the topic of next class is introduced.

The collection of data was carried out through the same survey proposed in Workshop 1. The semi-structured survey was conducted with 9 out of 11 students attending the course since its inception.

The responses provided by participants allow us to assess the efficacy of the workshop: class discussions on the topics covered and collaboration with other fellow students were the most appreciated aspects (with a score respectively of 35% and 29%), followed by the study of assigned materials (24%).

Yet, there are two critical issues to be addressed. As in the workshop on "Language and Cultures Teaching Methodology", the development of the case study and the timing of the tasks were perceived as weak points (3 out of 9).

However, the overall perception of the flipped class model is remarkably positive: all the students agree that pre-class activities have been *extremely relevant* for improving their in-class participation (see Fig. 3). Equally, all students found in-class discussions and activities *extremely helpful* for the understanding of the discipline (see Fig. 4).

Fig. 3. Relevance of out-of-class readings/activities

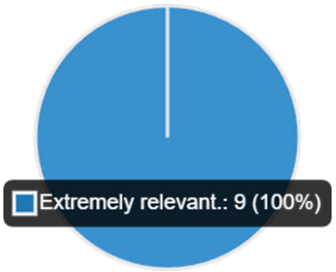
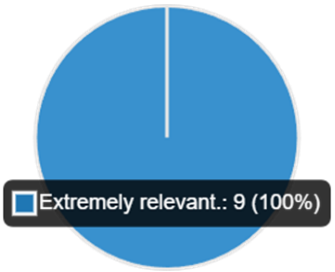


Fig. 4. Relevance of in-class activities



5. DISCUSSION

Flipped classroom is *innovative, fun, stimulant, interactive, interesting, demanding, challenging, captivating*: these are the qualities highlighted by the students who participated in the survey on the EME workshop on "Theory and Methods of Comparative Literature". They are consistent with the perceptions of the students of the skill-oriented workshop on "Language and Culture Teaching Methodology", for whom the learning model is *interesting, helpful, challenging, inspiring, intriguing, innovative, mind-opening*. These are the resulting data from Q8 of the survey, where students were invited to provide 3 adjectives of their choice to rate the methodology used.

These adjectives reveal a belated enthusiasm which comes unexpected, given the effort both teachers had to put in "flipping the classroom" and in fighting the resistance of students to engage in out-of-class activities and be seriously involved in in-class discussions and teamwork. However, these expressions of students' satisfaction might be explained in the light of the academic setting in which the flipped models have been adopted. This is to say that the benefits of reversing the classroom are not immediately perceived by students, especially by those raised in a teacher-centered educational model. So, what have the students learned to appreciate in flipped classroom?

First assumption: flexibility and personalization

Among the widespread perceived benefits of flipped classroom is flexibility in learning pace and a greater degree of personalization of learning time and space in out-of-class activities [12]. At home students can create their own working schedule, becoming effective self-regulators, whilst also being free not to follow exactly the given sequence of activities, and taking more or less time to consult reference sources, repeating exercises when necessary, expanding their knowledge by looking up to other materials.

Flexibility fosters creativity in the learning process. For this reason, in both workshops, learning materials are made available to students at the beginning of the course, so that they can skip through all the documents and get a general idea of the overall learning path, feeling free to anticipate or revise the various topics covered. Most importantly, flexibility makes it easier to cater to the needs of learners with different levels of proficiency in the subject area and in the language of instruction or with different interests and learning styles. The flipping model proved valuable for most students who could read and self-study the often-extensive documents at their own pace, looking up for unknown references and words online, pondering about the ways in which concepts and ideas are expressed and articulated.

Second assumption: interactive practices and cooperative learning

If flexibility makes the learning model *fun, stimulant, interesting, captivating*, the in-class activities might account for it being also *demanding* and *challenging*.

In an EME course of a theoretical nature, such as the workshop on "Theory and Methods of Comparative Literature", class discussions and activities are not only aimed at providing corrective feedback, but rather at contextualizing, expanding the topic with further references and examples, and most importantly, at building critical thinking skills. The inclusion of forms of interactive learning such as pair work and in-class writing has proved effective in encouraging students to clarify and organize their ideas, argue their positions and express their thoughts and evaluations. To this end, the presence in the EME class of international students with different educational backgrounds and already familiar with the flipped learning approach was very helpful for carrying out face-to face activities and implementing cooperative learning practices [11].

The comments of the students in the open-question section of the survey (Q8 and Q9) are consistent with research literature claiming that flipped learning increases positive self-efficacy beliefs and general improvement and satisfaction [10, 11, 15]. Participants' responses bear witness to the transformative potential of a flipped pedagogical model for communication, cooperative learning, and creativity.

Given the small-sized classes involved in flipped learning and the limited period of time covered by the data collected, we are not able to go into further detail here about the long-term effects of the flipped model on students' overall learning goals within their chosen academic programme. Since their activation both workshops have been based on the flipped instructional model, therefore we lack data confirming that the high rate of success in the final exams is to be attributed to the flipped methodology. It would also be useful to evaluate and compare how those students who participated in the workshops performed in courses not employing the flipped model so as to be able to measure the objective impact of the flipped methodology on their academic success.

A new data collection is currently underway in the same academic courses to expand the study to a larger group of students. Moreover, further research may regard the lasting impact of flipped learning on students' teaching practices. This investigation would imply a more active involvement of current students in some of the teaching activities of our workshops.

A final issue to be taken into consideration is the engagement of faculty in the implementation of the flipped model [10]. Reversing the classroom is not an easy task: it requires knowledge, effort, attention, preparation, time, digital resources, multimodal literacy. These demands may result in a work overload that discourages teachers from venturing "alone" into the new methodology. If a shift from a teacher-centered to a student-centered pedagogy is to be enacted, teachers' engagement and satisfaction, alongside students', are "sensitive" objectives to be firmly pursued, for they play a crucial role within the process of change undertaken by the academic world. As reported above, in our learners' survey the flipped model is hailed as *captivating, intriguing, fun, stimulant, inspiring*. Yet, can we claim the same for teachers and instructors? Would they share the same view?

6. CONCLUSIONS AND FUTURE PERSPECTIVES

Engaging in course redesign is a vital goal for university education and for its role in the advancement of a sustainable society. As a result, faculty are met with the challenges of shifting the educational paradigm by turning traditional passive learning models into dynamic and interactive ones. This shift can prove a complex and daunting task for faculty and students alike, especially when applied within an educational setting - such as the Italian one - obdurately centered on the traditional lecture method. Hence, the implementation of innovative teaching methodologies should rely not only on the willingness and work of individual teachers, but on structural academic projects endorsed collectively by institutions and comprising different factors, such as pre-practice training, the availability to faculty of advanced technological tools enabling interactive and individualized out-of-class activities, and an enhanced cultural awareness of the educational landscape into which the flipped method is integrated. All these aspects are essential to an effective and long-lasting pedagogical change.

REFERENCES

1. Abeysekera, L., Dawson, P: Motivation and cognitive load in the flipped classroom: Definition, rationale and a call for research. Higher Education Research & Development, 34(1), pp. 1–14 (2015). https://doi.org/10.1080/07294360.2014.934336
2. Al-Said, K., Krapotkina, I., Gazizova, F. *et al.* Distance learning: studying the efficiency of implementing flipped classroom technology in the educational system. Educ Inf Technol, 28, pp. 13689–13712 (2023). https://doi.org/10.1007/s10639-023-11711-x
3. Baig, M. I., Yadegaridehkordi, E.: Flipped classroom in higher education: a systematic literature review and research challenges. International Journal of Educational Technology in Higher Education, 20(61), 1–26 (2023). https://doi.org/10.1186/s41239-023-00430-5
4. Bergmann, J., Sams, A.: Flip Your Classroom: Reach every student in every class every day. International Society for Technology in Education, Washington, D.C. (2012).
5. Bishop, J. L. (2014). *A controlled study of the flipped classroom with numerical methods for engineers* (Doctoral dissertation). Available from Proquest Dissertations and Theses Global Database. (UMI No. 3606852)
6. Burns, A.: Doing Action Research in Language Teaching: A Guide for Practitioners. Routledge, New York (2010).
7. Cecchinato, G.: Flipped Classroom: riflessioni per la ricerca educativa. In Rossi, P.G., Giaconi, C. (eds.), Micro-progettazione: pratiche a confronto, pp. 105–112. FrancoAngeli, Milano (2017).
8. Coonan, C.M. (ed.): La ricerca azione. Cafoscarina, Venezia (2000).
9. Corona, F.: Flipped classroom. Uno scenario operativo per l'inclusione e la media education. MEDIA EDUCATION – Studi, ricerche, buone pratiche, 8(2), pp. 235–248 (2017).

10. Fawzi, M., Popa N. L.: University Teachers' Perceptions of Flipped Classroom: A Qualitative Study. Agathos: An International Review of the Humanities & Social Sciences (2023).
11. Foldnes N.: The flipped classroom and cooperative learning: Evidence from a randomised experiment. Active Learning in Higher Education, 17(1), 39–49 (2016).
12. Fructuoso I.N., Ahmedi, S., Robalino, P.E.: The Flexibility of the Flipped Classroom for the Design of Mediated and Self-regulated Learning Scenarios. Ried-Revista Iberoamericana de Educacion a Distanci, pp. 1–21 (2023). https://doi.org/10.5944/ried.26.2.36035
13. Galletta, A., Torre, M.: Participatory Action Research in Education. Oxford Research Encyclopedia of Education (2019).
14. Gilboy, M.B., Heinerichs, S., Pazzaglia, G.: Enhancing Student Engagement Using the Flipped Classroom. Journal of Nutrition Education and Behavior, 47(1), pp. 109-114, (2015). https://doi.org/10.1016/j.jneb.2014.08.008
15. Hudson, D. L., Whisenhunt, B. L., Shoptaugh, C. F., Visio, M. E., Cathey, C., & Rost, A. D.: Change takes time: Understanding and responding to culture change in course redesign. Scholarship of Teaching and Learning in Psychology, 1(4), pp. 255–268 (2015). https://doi.org/10.1037/stl0000043
16. Låg, T., Sæle, R. G.: Does the Flipped Classroom Improve Student Learning and Satisfaction? A Systematic Review and Meta-Analysis. AERA Open, 5(3), (2019). https://doi.org/10.1177/2332858419870489
17. Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge University Press. https://doi.org/10.1017/CBO9780511815355
18. Lester, F. K.: Trends and issues in mathematical problem-solving research. Acquisition of mathematics concepts and processes, pp. 229-261 (1983).
19. Morales, M.P.: Participatory Action Research (PAR) in Education. In C.A. Mertler (Ed.), The Wiley Handbook of Action Research in Education, pp. 317–341 (2019) https://doi.org/10.1002/9781119399490.ch15
20. O'Flaherty, J., Phillips, C.: The use of flipped classrooms in higher education: A scoping review. The Internet and Higher Education, 25, pp. 85–95 (2015).
21. Rivoltella, P.: Fare didattica con gli EAS. Episodi di apprendimento situati. La Scuola, Brescia (2013).
22. Trinchero, R.: I metodi della ricerca educativa, Laterza, Bari-Roma (2004).
23. Zainuddin, Z., Halili, S.H.: Flipped Classroom Research and Trends from Different Fields of Study. International Review of Research in Open and Distributed Learning, 17 (2016). https://doi.org/10.19173/irrodl.v17i3.2274
24. Zheng, L., Bhagat, K.K., Zhen, Y., Zhang, X. (2020). The Effectiveness of the Flipped Classroom on Students' Learning Achievement and Learning Motivation: A Meta-Analysis. Educational Technology & Society, 23(1), pp. 1–15 (2020).