STUDENT EXPECTATIONS IN HIGHER EDUCATION BLENDED LEARNING COURSES USING ACTIVE METHODOLOGIES IN PROFESSOR PRACTICES DURING ON-SITE CLASS TIMES

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Abstract

This article presents a qualitative study carried out with students from a higher education institution enrolled in Blended Learning courses, focused on professor practices. The concepts of Blended Learning, active methodologies, and problem-based learning guide the data analysis. The results indicate that student expectations differ significantly from what the institution proposes, particularly the desire for more direction and intervention by the professor in the teaching-learning process.

Keywords: Active methodologies. Blended Learning. Student expectations.

1. Introduction

The term Blended Learning has been used to designate courses that mix on-site and distance classes. According to Hinojo et al. (2009), this course format has the advantage of combining the positive aspects of Distance Education (DE), such as the autonomy of time and space to study, with the wealth of experience of academic space, which exists in on-site teaching. The prominent factor of these courses is the mediation of information and communication technologies (ICT).

There are several ways to operationalize Blended Learning, which have been presented by higher education institutions as a privileged alternative today. This is because, in addition to offering more autonomy to students to manage their study time, through the mediation of technology, they can be closer to the language and perspective of young people nowadays.

In addition, there are several ways to operationalize the proposal of mixing on-site classes with those mediated by ICT. The Higher Education Institution (HEI) in which the research reported here took place offers hybrid courses[1] using the flipped classroom methodology, and calls these courses "semi-present".

New ways of organizing the teaching-learning process, as is the case of the programs that are the object of this research, mean other types of professor and student practices, and new ways of relating to the knowledge. Based on this assumption, the objective was to investigate student expectations about professor practices in semi-present courses organized following the flipped classroom logic.

The methodology used for the research reported here is a case study, a strategy that, according to Yin (2005), enables an empirical investigation of a contemporary phenomenon in its real context. The data collection took place using the following strategies: a) a study of HEI documents, more specifically, the Educational Project of Semi-present Programs and the Student Manual for Semi-present programs; b) the application of a questionnaire to students, made available in a virtual learning environment that they access daily; c) focus group meetings.

Given that this study only makes sense if the empirical analysis aligns with a reflection based on theoretical references, this research will briefly describe the categories of content that guided the present analyses.

The central idea of the flipped classroom is to offer the content and the instructions to the students before they attend the classroom

2. Flipped classroom

The term "flipped classroom" is an expression used by Bergmann and Sams (2012), high school teachers from the US. Though presented as an innovation, this proposal dates back to the 1990s, concerning studies done in several universities based on possibilities resulting from the increasing advancement of ICTs.

The central idea of the flipped classroom is to offer the content and the instructions to the students before they attend the classroom, which assumes the role of "working on previously studied subjects, completing practical activities, such as problem solving and projects, group discussions, laboratories, etc. (VALENTE, 2014, p. 85).

Based on Bloom's Taxonomy of Educational Objectives[2], Bergmann and Sams (2012) claim that the activities of individual study are on a more elementary level of learning and can be mediated by ICTs. They believe that this strategy respects different paces and styles of learning since every student can study where and when they prefer. The instructional material must be prepared by

the professor and sent beforehand to the students so they can complete the individual and independent study. It is worth noting that this does not merely mean providing materials that already exist on the internet, but that the professor carefully organizes the study syllabus, tutorials, reading materials or other tools they deem necessary according to the specific subject.

The students then study the materials made available (generally, in a virtual learning environment), before on-site meetings (classes), in which more interactive activities occur. Following this logic, the on-site meetings are dedicated to more complex levels of learning, meaning activities of analysis, summarizing, assessment, application, and creation.

There is evidence for the fact that, to reach these levels, the classroom activities mediated by the professor cannot follow the logic of the traditional expository class, since the individual study has already achieved this phase. It is up to the professor to organize problem situations that strengthen the application of what the students studied on their own. With the objective of developing skills, such as negotiation, respect for different opinions and positions, and solving problem situations, these classes must be held primarily in groups.

3. Active methodologies

The classroom activities mediated by the professor cannot follow the logic of the traditional expository class

Active methodologies are a set of several proposals that have in common the fact that they diverge from the expository methodology, considered responsible for passive and dependent attitudes in students. They aim to lead the student "to actively participate and be responsible for their learning, of which they are the subject" (SUHR, 2016, p. 8). To this end, they propose ways to organize the teaching activities that place students in situations to debate and analyze real situations, prompting reflections on the theoretical references studied.

Among the various types of active methodologies, Problem-Based Learning (PBL) has been gaining relevance.

Berbel (1998) assumes PBL means revising the curriculum and organizing time and space, as well as the infrastructure of the teaching institution. Students receive problems previously prepared by specialists from the area, based on the knowledge that they will have to learn in a determined period. Students are organized into groups and do not necessarily need to have prior knowledge to solve the problems, whose purpose is to foster the pursuit of knowledge. Students solve these problems through research and support by professors/tutors, who will guide them through the solving stages.

Freitas (2012) believes the objective of PBL is "to develop study and thinking habits using the method of reflective experience, to improve the academic performance of students and, mainly, to promote autonomy in learning and teamwork, which is expected to happen in their professional lives" (FREITAS, 2012, p. 405).

Freitas (2012) highlights the general principles of PBL in eight points, namely:

a. teaching is student-centered and is heavily focused on the learning process;

b. students are responsible for their learning and co-responsible for defining what is important to learn;

c. what was previously learned is relevant, to facilitate new learning as well as make it more difficult;

d. learning should be active and interactive, favoring the development of skills such as debating, listening, and teamwork. That is because, in addition to the subject matter, learning requires skills to understand the problem;

e. contextualization, since learning only happens when problems are taken from real situations, usually from the professional context;

f. inductive learning: when students analyze and solve problems involving the topics in question, deducing solutions;

g. the role of the professor is to create problem situations and supervise the students in the solution. Professors act as the facilitator, supervisor, co-learner;

h. the problem always precedes theory since the latter will be required by the students to solve it.

As the reader can see, in the seventh principle of PBL, according to Freitas, the role of the professor is very far from what has become conventional in higher education: the expository class. One hopes that they can offer problems that trigger learning, in addition to acting as a supervisor for groups in solving the situations based on the studies completed and on research.

4. Description of the HEI studied

This research was completed in a private Higher Education Institution (HEI), which, for educational administration, is divided into Colleges. The 13 semi-present programs offered are part of two Colleges, eight from the College of Administration and Business[3] and five from the College of Education[4].

The semi-present programs are formally DE programs and, in the HEI researched, have a close connection to this modality, in which they have an offer. Therefore, the academic calendar of DE dictates the temporal organization. All the instructional materials (books, video-classes, tutorials, learning tracks, etc.) are available to the semi-present students, and the strategies, instruments and test dates are also the same. What distinguishes the semi-present programs is that they have two weekly meetings with two class-hours each. The fact that professors who have a higher degree than a tutor supervise on-site activities is presented by the HEI as a quality differential in the students' education.

Each of the on-site meetings has a specific objective, which must be achieved with the use of active methodologies. The first meeting of the week, called "broadening knowledge" aims to resolve doubts through strategies that promote active and meaningful learning about the content that the students studied in the virtual learning environment. However, it is a not a new oral exposition of the topics, but their problems and applications to new situations, created by the professors and developed in class, usually in teams, which are supervised and guided by the same professors.

Students must apply the concepts studied to solve real situations or those similar to what can occur in the professional area in question

The purpose of the second weekly meeting is "practical application" which, according to the institutional educational project, should also occur with the use of active methodologies, particularly Problem-Based Learning (PBL) and teaching cases. Students must apply the concepts studied to solve real situations or those similar to what can occur in the professional area in question. Since problems are complex and their resolution demands various types of skills and competencies, including interpersonal relationships, students solve them in teams.

The application activities tend to have a duration that is the medium or long term, depending on the program. For example: in the higher education program of technology in Human Resource Management, over the course of two years, regarding the courses that are offered, the students build a stream of processes in the area, from selecting and hiring employees, to their dismissal, going through the planning of positions and salaries, legal aspects, etc. In more extended programs, as is the case of the teaching degree in Education (four years), the practical application is more related to internship activities and does not last the entire program. That is because there are various potential fields of work for the graduates, each one with specific characteristics to be fulfilled.

In any case, regardless of duration, the application activities are completed in teams and are based on problems offered and supervised by the professors. It is in this sense that the HEI suggests the use of PBL and teaching cases.

5. Data analysis

After researching the institutional documents, a questionnaire was applied to the students enrolled in the semi-present programs in March of 2016. It is worth mentioning that this questionnaire took into account the data collected during the previous year with the professors who work in these programs since this is the second stage of a study in progress.

The questionnaire was made available to the students in their virtual learning environment for 30 days, in July 2016. The study was shared, and the students were invited to participate in all classes in conversations with the students to explain the objectives to them. Since participation was voluntary, there was a 26.2% rate of respondents, or, 203 of the 771 students enrolled. Among the respondents, 62.6% were enrolled in programs in the College of Administration and Business and 37.4% in the College of Education.

Considering the differences in objectives, structure, and duration of the programs, the initial hypothesis was that there would be differences between the perceptions and expectations of the students from the two colleges, though the data analysis did not confirm this hypothesis. However, there is a great deal of similarity regarding their understanding of the role of the professor.

The first item on the questionnaire invited the students to answer whether their expectations about the semi-present programs were closer to the on-site education model, the distance model, or whether they expected an innovative model, with 74% of them claiming to have expected a program close to the on-site modality.

The same to the answers to the other questions when the students claim to have expected the professor to behave more closely to what is considered a "classic" on-site program, diverging from what is proposed by the HEI for these programs. There are several references to the professor's practices in defining and managing the activities to be completed, such as "explaining the content" and "giving more classes".

With the objective of understanding the students' expectations regarding the professor's practices, there was the proposal of two questions, one with defined choices to be marked and another with a free response. In the question with the directed answer (choices), the student could choose as many alternatives as they wished and the text was as follows: "What do you consider to be essential for a professor who teaches in on-site classes in a semi-present course?". The answer choices were taken from the initial stage of this research, completed in 2015 with professors who commented

on what they considered necessary to be a good professor in this type of program, based on their experience.

The open-ended question was the same as the one posed to the professors: "If you could mentor a professor who is starting to work in a semi-present course, what would you say to him/her?".

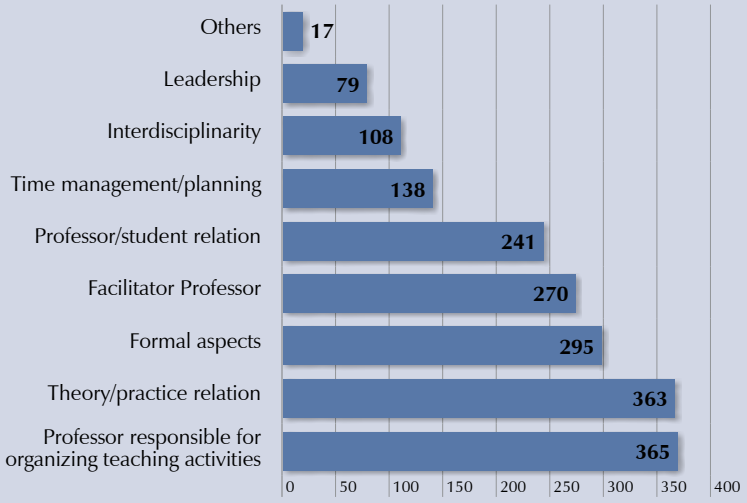
To complete the following analysis, the answers were grouped into categories and aimed to determine whether there were divergences with choices and the open-ended question.

Although the other categories are possible, the choices from the question with the prompted answer have a classification according to the following categories:

- Professors are responsible for organizing the teaching activities, viewing them as directors of the teaching-learning process, defining the activities to be completed, competent in their choice of teaching strategies and their command of the content;
- Theory-practice relation, including the actions/strategies that they promote;
- Formal aspects, regarding the recommendations on the academic systems and the technology medium;
- Professor as a facilitator, including as a coach, tutor, study supervisor;
- Professor-student relation, a category that includes mediating conflicts between students and establishing amicable relations between the teacher and students;
- Time management/planning, including careful planning of class meetings and objectivity in the use of time;
- Interdisciplinarity;
- Leadership;
- Others.

The level of importance given by students to each of these points is available in Graph 1:

Graph 1 - Knowledge necessary for the professor – directed answers



Source: Created by the authors.

In this graph, the category "professor is responsible for organizing the teaching activities" is the most relevant, followed closely by the "theory/practice relation". It was interesting to see that the third category regarding importance was "formal aspects", demonstrating an expectation from these students that, at first, did not appear to be so relevant since it is a program that proposes a different methodology, that which assumes student autonomy.

Before continuing the analysis, we must present the data collected from the open question, categorized according to a floating reading (BARDIN, 1977). The objective is to determine the representativeness of each point indicated compared to the whole and capture the elements that have yet to be brought up (or conflict) about the directed responses.

The categories chosen to group the answers were:

- Professor as the organizer of the teaching activities, with expressions such as "teaching class", "explaining the subject", "class control", "variation in teaching strategies" and "knowledge of the content".

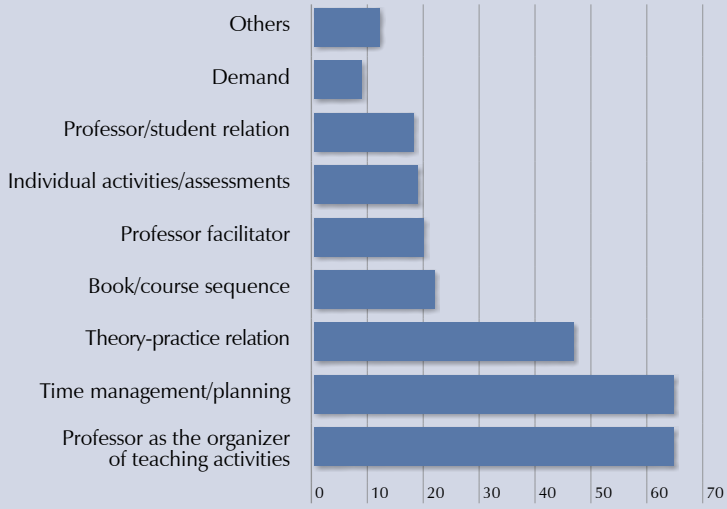
- Time management/planning, including directing debates, avoiding digressions, productive use of time, clarity and objectivity in classes, avoiding improvisations;

- Theory-practice relation, represented by expressions such as "avoid empty theorizing", relating the content from the video-classes/book to the professor's experiences and organize practical activities.

- Book/Course sequence, asking the professor to follow the planned order in the supporting materials.
- Professor as facilitator, represented by expressions such as "showing the way" and "supervising the teams well".
- Doing more individual activities.
- Professor-student relation, cited by expressions such as "support and mediate relations between students, managing conflicts and more dialogue".
- Demands, mainly regarding the assessment, giving constant feedback.
- Others, a category in which the answers with little representation in the whole were grouped together.

The following is a graph that demonstrates the degree of importance of each category for the students in this question:

Graph 2 - Knowledge necessary for the professor – free answers



Source: Created by the authors.

It is worth noting some consistencies in the students' positions on the two questions (directed and non-directed answers) regarding the degree of importance of the following elements:

The category "professor as the organizer of the teaching activities" was marked with the highest degree of importance. "Theory-practice relation" is also relevant in the two graphs, confirming that these students expect the

professor to direct the activities, but always in a way that they can see the relations to the job market and citizen life. Similarly, the category "professor-facilitator", which is the position expected by the Institution, was chosen with a low level of relevance in the students' expectations.

In the non-directed responses, there were new elements, presented briefly below:

a. Request for there to be more individual activities, which contradicts the HEI guidelines, according to which on-site activities should be done in groups, to develop communication, negotiation and debate skills.

b. Though there is a lower level of relevance, the expectation of higher demands from the professor emerges about the students' results, as well as the importance of constant feedback.

c. Requesting that the courses in the program follow the sequence of the syllabus or the textbook, which appeared in fourth place regarding relevance, can be an indication of a linear understanding of the curriculum, in which the topics necessarily follow a preestablished logic.

The fact that the "time management/planning" aspect appeared with a high level of relevance in the non-directed responses stood out, leading to new questions regarding what they were saying. The proposition of several hypotheses, such as Who is saying that the time management is inadequate: students at the beginning of the program, who still have not understood the logic of the flipped classroom and active methodologies? Is there a digression and loss of focus on the part of the professors?

As a consequence of the doubts raised in comparing the answers to these two questions and, with the objective of better understanding what these students were saying, two meetings were held with the students, in which this research aimed to "hear their voices" using the technique of focus groups.

Meetings with two different groups were held, one with students in their first year of the program and another with students in their last year. The propose of this division had the objective of determining whether there are differences in the perception of the beginners when compared to the veterans, given that they possibly do not have experience with this methodology and they may have expectations resulting from what they experienced in primary education.

After holding the meetings, small differences regarding the position of the underclassmen and upperclassmen were in evidence, demonstrating that their initial expectations are very much characterized by their experiences as students over the course of primary education.

Among the underclassmen, the number of students who expected a program closer to on-site programs is more significant, as well as the position of the professor as someone who leads the on-site classes.

In this group, the perception of "digression" on the part of the professor is more limited, tending to expect an almost authoritarian direction of all the activities to be completed. Activities that involve the students doing research, debating in small groups and formulating hypotheses to solve problem situations based on the topics studied on their own are considered digressions. The students reason that they still have not gathered enough knowledge to complete these activities on their own and that they need more direction in understanding the concepts, before trying to solve cases and problems.

Among the underclassmen, the number of students who expected a program closer to on-site programs is more significant

Among the upperclassmen, there is a greater sense of the autonomous role of the student in this type of program, as advocated by the HEI. They refer to the fact that the job market will require them to have a proactive attitude and the program has helped them develop that, mainly in the way the professor works, by not giving the answers, but by posing problems to be solved based on studying the topics of the courses in the module. They claim that this way, they have developed the ability to pursue the knowledge necessary to solve problems they cannot predict in the duration of the program. Besides that, they say that higher education would never have the ability to "teach everything that is necessary; knowledge changes and we do not know what we will need in the future" (student from the program in the College of Administration and Business in Focus Group 2: upperclassmen).

Though these students demonstrated having learned to organize themselves and complete the activities proposed according to the logic defended by the HEI, it is necessary to emphasize the utilitarian perspective of their comments, having the job market as the principal agent in determining their expectations about the college program.

Despite the differences, the two groups report that when the professors plan the classes well, higher levels of learning take place and they believe that only a professor with a good command of the subject matter is capable of establishing theoretical-practical relations and connections between the courses in the same module. They also claim that it is easy to see when the professor is only "performing the task that the coordinator gave, without knowing exactly why" (student from the group of upperclassmen during the focus group). It is worth clarifying that the command of the content here refers to a broader view of the area of expertise, enabling the professor to understand the phenomenon in question in each module based on the entire area.

Regarding the persistent request for more theoretical-practical relations in the answers to the questionnaire, the meaning students participating in the focus

group gave to this expression is less about the practical application of what was studied (as proposed by the HEI) and more about proposing classroom activities that will lead them to establish meanings to the content. There were several references to examples, debates, working practice situations presented by the professor to be analyzed and discussed in the classroom. They report that the mediation of the professor is central in this process, since the students' group activities, though plentiful, are not able to achieve the same depth that is possible with the direct interference of the professor.

The relevance of one student's contribution at the end of the program during the Focus Group highlights below:

> We want to understand the basis of the reasoning, of the subject so that we can use it in various situations. The problem that the professor presents does not always address everything, and we run the risk of having incomplete knowledge. Moreover, we can get this from the professor, not even the video-classes, or the problems can do that. We apply what we understood, but the professor always knows to show something more, one more detail that I had not noticed.

Therefore, the students believe the intervention of the professor is essential, understood as someone who has more knowledge and experience and who is responsible for organizing the teaching sequences. In this sense, contrary to what is proposes the HEI and the authors who describe PBL, they approximate the view expressed by Kuenzer (2006, p. 17), when she claims that it is the responsibility of the professor

> to organize activities that go from the known to the new, from part to whole, from simple to complex; this will only be possible with the theoretical-practical activities of the students in learning situations planned by the professor, always based on social and work practices that should be analyzed and transformed according to increasingly broad and more complex theoretical foundations.

According to this author,

> For learning to take place, the starting point of activities must be the prior knowledge of the students, to the present new knowledge; in this transition, new meanings are developed based on preexisting cognitive structures. In this process, both types of knowledge are modified: the new begins to have to mean; it is understood and ready to be applied; it assimilates to the prior knowledge, which, in turn, becomes more elaborate. The result is a summary of higher quality, which turns into new ways of thinking, feeling and doing.

This description by Kuenzer (2006) does not deny the role of posing problems through cases, placement in work practices, etc., but ties it to the qualified intervention of the professor, who organizes learning situations which link

theory and practice. On the other hand, it emphasizes the development of the skills of reasoning and broadening the students' worldview.

6. Final considerations

While it is not possible to generalize the data collected for this case study, the intention in presenting it to the scientific community is to start a debate and to promote knowledge on the organization of hybrid programs and the use of active methodologies in higher education. Many aspects raised here need to be better understood, indicating the need to continue the present research.

In the current stage of this research, the point that stands out is the divergence between what the HEI claims the role of the professor should be in semi-present programs and students' expectations. While the HEI expects the professor to act as a supervisor, tutor, and facilitator of student learning, the students expect that the professor "define and direct" (expressions used by the students) the teaching-learning activities.

The fact that this expectation is more relevant in the groups at the beginning of the program indicates that a significant portion of the students tends to incorporate experience over the years with a particular way of organizing teaching tends. Moreover, the fact that students at the beginning of the program demonstrated greater antipathy and a lack of understanding regarding the way professors work suggest that few have experienced in basic education strategies different from the expository class and the leading role of the professor regarding the decisions on organizing the teaching-learning process.

One of the elements brought up by the students deserves support: a professor that has a broad view of the area of knowledge and a background in the program in question is indeed more likely to favor the theory-practice relation. Therefore, to work with this type of organization, the professor must have even more knowledge than in the classical structure of the expository class.

Problems, questions, and unexpected situations are much more likely to appear when the students have a direction to research, which active methodologies defend. Helping students overcome challenges means professors with broad knowledge of the professional area of the program, but also, a command of teaching strategies that enable them to establish meaningful connections between reality and the learner. Finally, it is necessary for these professors to assume that they are eternal learners and researchers, rejecting the position of the "master of knowledge".

It is worth pointing out that, while the logic of PBL is to present problems to students, regardless of whether they have prior knowledge or not, the

participants of this research believe that they need more direction and more excellent command of the concepts before solving cases and problems. They ask for more direct interventions from the professor, helping them on the path from theory to practice and vice-versa, which they consider being a prerequisite for solving the problems presented.

Though the current stage of this research does not allow us to present a definitive position in this regard, we suggest some possibilities for this stance. The first would be a lack of previous experience with this methodology, leading students to have a more dependent position. Another possibility could be the students saying that the PBL structure, at least the way of implementation in the HEI investigated, does not guarantee a broader understanding of the subjects in question.

This latter possibility gains strength when the students ask that, instead of focusing on the practical application of the concepts, it would be more productive to experience activities in a class supervised by the professor that would allow them to establish relations between the various subjects, providing more significant meaning to their learning.

One might wonder whether the persistent request of the students regarding increased direction by the professor is just an "old-fashioned" expectation of how teaching is supposed to be or is it an intuitive perception of how the intervention process of knowledge occurs. This question could not be adequately addressed in the current phase of this research, but it indicates a proper path for continuing these and other studies that help understand the limitations and possibilities of blended learning and PBL to achieve learning in higher education.

Notes

1 Following Tori (2009, p. 121), the terms "blended learning" and "hybrid teaching" are interchangeable, understanding them as an attempt to combine the advantages of on-site and distance modalities "considering context, cost, educational adequacy, educational objectives and student profiles".

2 Benjamin Bloom was a North American psychologist (1913-1999). He coordinated a group of researchers who classified and ordered educational objectives according to their desired effects on education. They divided learning into three major domains: affective, cognitive and psychomotor.

3 The College of Administration and Business offers a bachelor's degree and six technology programs in this modality, namely: Technology programs in

Human Resources, Foreign Trade, Commercial Administration, Financial Administration, Logistics; and a bachelor's degree in the Executive Secretariat.

4 The programs offered by the College of Education are all teaching degrees in the following areas: Letters, Education, Geography, and History.

References

BARDIN, Laurence. **Análise de conteúdo**. Lisboa: Edições 70, 1977.

BERBEL, N. A problematização e a aprendizagem baseada em problemas: diferentes termos ou diferentes caminhos? **Interface**, Botucatu, v. 2, n. 2, p. 139-154, 1998. Disponível em: <http://dx.doi.org/10.1590/S1414- 32831998000100008>. Acesso em: 28 set. 2015.

BERGMANN, J.; SAMS, A. **Flip your classroom**: reach every student in every class every day. Washington, DC: International Society for Technology in Education, 2012.

FREITAS, R. Ensino por problemas: uma abordagem para o desenvolvimento do aluno. **Educação e Pesquisa**, São Paulo, v. 38, n. 2, p. 403-418, abr./jun. 2012. Disponível em: <http://www.redalyc.org/articulo.oa?id=29823285009>. Acesso em: 15 mar. 2016.

HINOJO. F. J.; AZNAR, I.; CÁCERES, M. Percepciones del alumnado sobre el belnded learning em la universidad. **Comunicar**: revista científica de educacomunicación, v. 18, n. 33, p. 165-174, 2009. Disponível em: <http://rabida.uhu.es/dspace/bitstream/handle/10272/2845/b15574222.pdf?sequence=1>. Acesso em: set. 2012.

KUENZER, A. Z. **Trabalho e escola**: a aprendizagem flexibilizada. 2016. Trabalho encomendado para o Eixo 21: Educação e Trabalho na XI Reunião Científica Regional da Anped, 2016, Curitiba. Disponível em: <http://www.anpedsul2016.ufpr.br/wp-content/uploads/2015/11/Eixo-21-Educa%C3%A7ao-e-Trabalho.pdf>. Acesso em: 1 nov. 2016.

SUHR, I. R. F. Desafios no uso da sala de aula invertida no ensino superior. **Revista Transmutare**, Curitiba, v. 1, p. 4-21, 2016. Disponível em: <https://periodicos.utfpr.edu.br/rtr/article/view/3872>. Acesso em: 30 out. 2016.

TORI, Romero. Cursos híbridos ou blended learning. In: LITTO, Fredric Michael; FORMIGA, Marcos (Org.). **Educação a distância**: estado da arte. São Paulo: Pearson, 2009.

VALENTE, J. A. Blended learning e as mudanças no ensino superior: a proposta da sala de aula invertida. **Educar em Revista**, Curitiba, n. 4, p. 79-97, 2014. Edição especial. Disponível em: <http://ojs.c3sl.ufpr.br/ojs/index.php/educar/article/view/38645>. Acesso em: 10 maio 2016.

YIN, R. **Estudo de caso**: planejamento e métodos. 4. ed. Porto Alegre: Bookmann, 2010.