

An Assessment of Students' Enthusiasm for Pre-Class Preparation

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Abstract

In active learning scenarios, pre-class preparation is necessary but not sufficient for students adopting a “deep learning” approach: obligatory engagement with preparation materials does not preclude surface or strategic learning approaches. Therefore, studying students' diverse experiences of and motivations for pre-class work helps identification of the factors influencing or inhibiting their preparation, the way they tackle any obstacles they encounter, consequent impacts of their preparation, and their expectations. Based on semi-structured face-to-face interviews with students in higher education, this study reflects on their experiences, motivations, challenges and strategies, impacts, and expectations related to pre-class preparation. This study concludes that students' learning expectations (such as demands for well-scheduled, well-structured, clear, brief, specific instructions, and availability of study materials for reading, listening or watching, etc.) should be reflected in the design and execution of an active learning scenario where pre-class preparation is obligatory.

Keywords

Pre-Class Preparation, Deep Learning, Experience, Motivation, Expectations

1. Introduction

While many studies address students' enthusiasm in learning under various circumstances (e.g., Nur, 2019; Frenslley, Stern, & Powell, 2020; Putri, Hadi, & Iz-zah, 2021), there is a lacuna in addressing students' enthusiasm for pre-class preparation. In general, pre-class preparation can take the form of reading texts and articles, listening to audio, watching videos, or writing assignments, as detailed by their course instructor to meet specific learning outcomes. In an active

learning scenario, pre-class preparation facilitates students in classroom performance and final achievement in a course. Some students may welcome and enjoy pre-class preparation, while others may not, which indicates their varied states of learning enthusiasm and thus is the matter of interest in this study.

Students' interest and eagerness in a subject triggers their enthusiasm either towards a deep or surface learning approach. Marton and Säljö (1976) in their seminal work on article reading using a phenomenographic method, interviewed small numbers of students to understand their learning behaviour. Based on their qualitative analysis the authors distinguished between the examples of deep and surface learning approaches and this distinction "appears to be a powerful form of categorisation for differences in learning strategies" (Entwistle & Ramsden, 1983: p. 17). In a deep learning approach, academic learners consistently and spontaneously use higher-order learning processes in terms of memorising, note-taking, explaining, relating, applying, and theorising the intentional contents of lessons (what is signified) even as pre-class preparation. Surface learners (non-academic learners), on the contrary, remain less interested in the course and keep to a rote learning strategy (the discourse itself or the recall of it). Although at the tertiary level, all students should use a deep learning approach, only so-called academic learners successfully employ it. In contrast, non-academic students remain far behind (Biggs, 2012). Therefore, current educational practice emphasises students' active participation in the classroom and aims for simultaneous and consistent engagement of all students with the contents of their lessons (Jakobsen & Knetemann, 2017).

Since students are the ones doing the learning, their spontaneous and consistent engagement in the contents of lessons (Prince, 2004) through pre-class preparation has become a significant concern in team-based learning (TBL), problem-based learning (PBL) and flipped classroom (FC) scenarios (Koles, Stolfi, Borges, Nelson, & Parmelee, 2010; Schmidt, Rotgans, & Yew, 2011; Ofstad & Brunner, 2013; Toivola & Silfverberg, 2015) (for details, see Section 2.1). These learning scenarios represent an active learning method that requires students to search for questions and solve problems by themselves (Nishigawa et al., 2017). With their student-centred approach, these learning scenarios have overturned the traditional teacher-centred approach of involving students in a lecture to get information and use or apply it to subsequent activities (e.g., discussion, solving problems, or attending examinations). These techniques have proven beneficial in variety of ways, including improvement in students' achievement, motivation towards studies, interpersonal relations, and self-esteem (Prince, 2004). One beneficial aspect of pre-class preparation is the application of a deep learning approach by students in their studies (Marton & Säljö, 1997). Still, it is difficult to confirm that all students would necessarily do so (i.e., apply a deep approach). Whether it is group work or individual work, students have their autonomous power to confirm or disconfirm a deep learning approach when undertaking pre-class preparation.

Whereas plenty of studies address pre-class preparation in different learning

scenarios (see Sections 2.1, 2.2, 2.3), analysing the enthusiasm of students' pre-class preparation irrespective of its origin (e.g., TBL, PBL, or FC) has not been attempted. Therefore, this paper intends to explore students' experience of and motivation for pre-class preparation, consequent impacts of their preparation, and their expectations so that their confirming and disconfirming evidence on enthusiasm for pre-class preparation could be understood.

2. Literature Review

2.1. Students' Learning Approaches and Pre-Class Preparation

Learning approaches can be defined as “the ways in which students go about their academic tasks, thereby affecting the nature of the learning outcome” (Biggs, 1994). How students approach their learning determines their engagement with and dedication to their studies, and there are variations among students in terms of their adopted approach (Entwistle & Peterson, 2004; Biggs, 2012). Some may be devoted enough to invest effort in understanding willingly and examining ideas, linking their previous knowledge and experience, identifying patterns and underlying principles logically and coherently: a deep learning approach. Others may try to memorise key facts and terms of the course material without grasping the real meaning—a surface approach—which may result from an intention to pass, or merely to gain a certificate (Biggs, 2012). Some students try to put effort into organised studying to achieve a desired grade in the course or satisfy personal goals or both, in a so-called strategic approach (Entwistle & Peterson, 2004). These varying approaches indicate that students undertake preparation in different manners and at different levels based on their engagement in and devotion to study. Although there are many other variables (e.g., learning environment, classroom situation, teaching methods, etc.) that can play significant roles to instigate students towards their studies, students' pre-class preparation depends primarily on themselves, and thus is the matter of interest in this study.

2.2. Conceptualisation of Pre-Class Preparation and Related Learning Scenarios

We can define pre-class preparation as the self-regulated (autonomous) and prior knowledge-generating preparation taken by students in advance for a class, which is instructed or inspired by the course module or the course teacher and mostly practised in active learning scenarios such as TBL, PBL, and FC. As pre-class preparation, students complete different assignments such as a reading of textbooks, journal articles, materials prepared by the course teacher, or listening to prescribed or pre-recorded audios/videos. In a traditional learning scenario, pre-class studying tends not to be enforced and lacks in-class accountability; instructors often cover the pre-assigned tasks in class anyway (He, Holton, Farkas, & Warschauer, 2016). On the contrary, in active learning approaches such as TBL, PBL, and FC the responsible teacher designs pre-class instruc-

tions in advance, and students are required to do the instructed obligatory pre-class work before coming to the class (see He et al., 2016; Jakobsen & Kne-temann, 2017).

TBL is a collaborative and instructional strategy characterised by students' pre-work and preparation for the class, students' readiness for tests, and decision-based application activities (Koles et al., 2010). According to TBL, an advance assignment defined by the teacher is provided for study, which could include some articles, textbook sections, or teacher-prepared materials (Ofstad & Brunner, 2013). In a PBL scenario, the tutor gives some problems as a trigger for learning. Students are asked to do some pre-class activities through self-study and in small group collaboration. Students get ample time for pre-class preparation. The tutor facilitates students in the class, and thereby, the learning becomes student-initiated (see Schmidt, Rotgans, & Yew, 2011). FC is a combination of e-learning and face-to-face classroom technique. Like TBL and PBL, FC also includes pre-class activities and students take the pre-class preparation mainly by watching or listening to prescribed or pre-recorded audios/videos in general. These resources are available on the internet. Students receive information on relevant links from the course instructor or the course module. Students receive individual instruction and workshops that are conducted face-to-face in the classroom (Nishigawa et al., 2017).

FC including TBL and PBL inverts the traditional classroom environment where "class time is typically spent on information transfer through lecturing, while the higher-order tasks are done as homework, and consequently outside the classroom activity" (Toivola & Silfverberg, 2015). Materials can be provided in advance both in traditional (optional) and active (obligatory) learning scenarios so that students can take preparation and generate and integrate (assimilate) their prior knowledge. Academic learners routinely maintain a deep learning approach. Followers of surface and strategic learning approaches may not welcome pre-class preparation unless it is obligatory. So, students' learning styles (e.g., deep, strategic, or surface learning) may be differentiated when they take pre-class preparation. Unless it is obligatory, some may not consider taking pre-class preparation at all. Academic learners (having a deep learning approach) possess the intrinsic motivation and non-academic learners (having strategic and surface learning approaches) display instrumental motivation and fear of failure (McCune & Entwistle, 2011).

Consequently, while academic learners can enjoy and experience pre-class preparation, it is uncertain for surface and strategic learners unless obligatory. Based on intentional approaches to learning, McCune and Entwistle (2011) argue that the application of effort, concentration, time management, and organised studying and necessary learning processes should support intention. Biggs (1987) explains that academic learners express their intentional aspect of learning through their intrinsic motivation and interest in the content. On the contrary, surface learners' intention associates instrumental motivation and fear of failure. Different types of students have diversified motivations and experience

pre-class preparation in various ways.

2.3. Students' Motivation for and Experiences of Pre-Class Preparation

Motivation has been identified as a major factor in student achievement and influence in determining student retention in higher education (Edgar, Carr, Connaughton, & Celenza, 2019). Motivation could be intrinsic (based on the intrinsic motivational factors such as interest in the subject, sense of accomplishment, self-confidence and responsibility, personal and intellectual growth) or extrinsic (based on the extrinsic motivational factors such as grades, free-time activities, praise) (Workman & Williams, 1980; López-Fernández, Ezquerro, Rodríguez, Porter, & Lapuerta, 2019). Since the 1990s, several studies in educational psychology have discussed the role of mastery goals and intrinsic motivation in the learning process (Pintrich, 1999; Archer, 1994). Educational research has underlined the importance of student-focused approaches to learning: “what students do to achieve [an] understanding that is important, not what teachers do” (Entwistle & Peterson, 2004: p. 43; Biggs, 1999: p. 61). Furthermore, in the teaching/learning context, it is expected that “all students are more likely to use the higher-order learning processes” (the cornerstone of deep learning approach) without which high-quality learning outcomes may not be achieved (Biggs, 1999).

Students' experience of pre-class preparation varies depending on multitudinous intrinsic and extrinsic motivators. For instance, results of a study conducted at the Universidad Politécnica de Madrid (UPM) among 41 master's degree Aerospace Engineering students show the factors most impacting student-motivation are related to intrinsic motivators such as self-confidence and responsibility, enjoyment of studies, personal and intellectual growth, feeling of progress, and sense of accomplishment (López-Fernández et al., 2019). The results of another study conducted by DeJongh, Lemoine, Buckley, and Traynor (2018) show that students invest little time to prepare for traditional courses without in-class accountability, which may lead students to perceive that active learning such as TBL requires too much preparation time. As observed, the time allocation and in-class accountability are two extrinsic factors that impact students' motivation for pre-class preparation.

Pre-class learning materials, as Han and Klein (2019) argue based on a review of 48 articles, such as video lectures, or reading materials, are the most-often-used primary modality to deliver pre-class learning. Their results also show that students favour pre-works that are brief and guided and have clear objectives. Alayont (2014) considers that linking pre-class assignments closely to the in-class activities, building in-class works on pre-class tasks, and emphasising previous positive student responses about pre-class activities increase students' motivation.

3. Materials and Methods

The purpose of this study was to investigate students' confirming or discon-

firming evidence on enthusiasm for pre-class preparation in terms of their experience of and motivation for pre-class preparation, consequent impacts of their preparation, and their expectations. Since the aim in qualitative studies is to explore a particular situation, comprehend specific actions or deliver theoretically sound interpretation of a phenomenon in question (Creswell, 2009), a qualitative approach was considered suitable to explore pre-class preparation through students' experience, and related motivation, impact, and expectations. Therefore, we conducted some qualitative semi-structured interviews to collect relevant data.

3.1. Participants and Their Recruitment in the Research

We recruited the interviewee students at the University of Helsinki premises mainly at the Keskusta (centre) campus and Kumpula campus. They were current students at the university. We did not select any specific subject to recruit students as interviewees. We interviewed a non-probabilistic purposeful sample of 18 students from a variety of disciplines and learning competencies, nationality, age, and gender differences (Appendix 1) to portray a range of possibilities (Kuzel, 1999; Durdella, 2019). None of our respondents were below the age of 21 years. We had one 46 years old respondent. Except four, all students were between the ages of 21 and 30 years old. Of those 18 respondents unintentionally we had an equal proportion of males and females. Among 15 Finnish and three non-Finnish respondents, we had 16 Finnish speaking and two English speaking students. In terms of disciplines, we had six respondents from Social and Public Policy (including environmental policy) and three respondents from History; the rest of the respondents were from other nine disciplines. Except for three bachelor and two doctoral students, all participants were pursuing a master's degree. All respondents were able to communicate and study in English notwithstanding their own preferred principal language of study.

3.2. Interview Design

To gather in-depth information pertaining to respondents' enthusiasm for pre-class preparation by knowing their viewpoints and experiences we planned to conduct some interviews. With this investigation intention, we planned to collect both short response answers (students' basic information mainly) and longer freeform answers (topic-based research questions). Thus, we prepared a semi-structured questionnaire (Appendix 2). To be consistent with the research topic, we decided to include research questions (RQs) on four areas of focus for investigation: students' experience of pre-class preparation (RQs—1, 2, 3), their motivation, the challenges they encounter and overcoming strategies (RQs—4, 5, 6, 7), the impact of pre-class preparation (RQs—8, 9, 10, 11, 12), and their expectations (RQs—13, 14, 15). These areas also indicate the boundaries of the study.

To get in-depth information pertaining to students' experience of pre-class

preparation in our questionnaire (**Appendix 2**) we included questions on students' experience of pre-class preparation, the details of the most recent course where they applied pre-class preparation activities, and the methods and techniques they used to undertake pre-class preparation.

To gather respondents' motivation, the challenges they encounter and overcoming strategies pertaining to pre-class preparation, we posed four principal questions. We considered that such information would disclose students' enthusiasm to take pre-class preparation while encountering different challenges and adopting overcoming strategies to complete the course works. So, we wanted to know why students were motivated to take pre-class preparation, the obstacles and challenges they encountered, the overcoming strategies and techniques they adopted to tackle those matters, and the drivers that motivated them to take such preparation.

We also planned to get respondents' experiences and viewpoints on the impact of their pre-class preparation because their enthusiasm for pre-class preparation would be reflected there and it might show their potential engagement with pre-class preparation in other courses. So, we posed specifically five related questions that included their engagement with discussion within a class; class performance, and grades; pre-class preparation and mental satisfaction; their credibility and acceptance among peers, or feedback from teacher; and other impacts.

To flesh out more on their enthusiasm for pre-class preparation, we wanted to know interviewee students' expectations regarding pre-class preparation. Therefore, we included questions on the suitability of pre-class preparation on their personal learning style; course instruction and availability of material to study in advance; and whether they would prefer more classes where pre-class preparation is mandatory.

We considered each interview as a co-production of the interviewer and the respondent (Hai, 2021). Therefore, we planned "probes" and "prompts" to various question stems, which allowed the interviewee students "to elaborate, qualify, and expand upon their answers, and to provide examples as evidence" (Henn, Weinstein, & Foard, 2006: p. 162).

We also decided to explain the purpose of our research to the respondents so that they would willingly and confidently participate in the interviews. After delivering such background information to the respondents we conducted the interviews. We also provided assurance to the respondents about data confidentiality and restricted its use to academic purposes only, as detailed in Section 3.4.

3.3. Data Collection and Analysis

Following our plan, we conducted one-to-one interviews so that students could feel comfortable to disclose his/her information in a descriptive manner without being interrupted by the presence of others. We collected research data between February and March 2018. We allowed our interviewee students to share their experiences of pre-class preparation in any of their most recent (current or past)

courses. While conducting the interviews, rapport building with subjects (e.g., showing alertness through keeping eye contact, expressing gratitude, responsive tone-setting based on the students' statements, positive "face management") was found fruitful to obtain more usable data by becoming close to them (Hai, 2014; Hai, Monjur, & Seppälä, 2017).

While transcribing the recorded interviews, we gave serial numbers of students (e.g., ID-1, ID-2; **Appendix 1**) to hide their identities. We transcribed the raw data into a "Google Docs" for easy data access from anywhere, which helped the data assembling, presentation, and analysis processes. We considered content analysis as the method of data analysis (see Creswell, 2009; McIntosh & Morse, 2015). We analysed data based on the stated literature and research objectives. We grouped the questions and related answers into four major areas of focus (Section 3.2) that aided the data analysis procedure. However, we found that the questions were interrelated in varying ways (Section 4).

3.4. Ethical Consideration

The principal issues when designing an interview guide for data collection are ensuring voluntary participation, informed consent, and confidentiality (see Hai, 2012), which we maintained at the time of interview and dealing with research data. We did not store respondents' identification and their names with the data. We only used the collected information for the intended purpose of the study. We gave an opening statement to introduce the interview and provide pertinent information regarding the purpose of the study, our intent and motivation, as well as the method of data collection and its confidential use. Thereby, we tried to mitigate any ethical concerns.

4. Results and Analysis

4.1. Experience of Pre-Class Preparation (RQs—1, 2, 3)

All but one interviewee student had "ongoing" experience or that which "ended a few weeks ago" of pre-class preparation. Based on the responses of respondents we found that their experience of pre-class preparation varied according to the assigned pre-class tasks given by the course teacher, the time they allocated and the methods they employed to do those tasks (**Figure 1**). Their responses indicated that classes which handle more abstract subjects (e.g., social theory, statistics, programming) require specific pre-class preparation. Most students experienced pre-class preparation that ended in the year 2017. Institutional settings (mainly the course structure) directed and influenced students to take pre-class preparation (see also Rajala & Sannino, 2015). They designed their preparation following the instruction they received from the course materials or directly from the course teacher. Some students mentioned more than one course that required pre-class preparation. For required preparation depending on the course, students were instructed to, e.g.: read texts (e.g., articles, chapters) and reflect it in the class; or write one- or two-page learning diary each week; or write critical

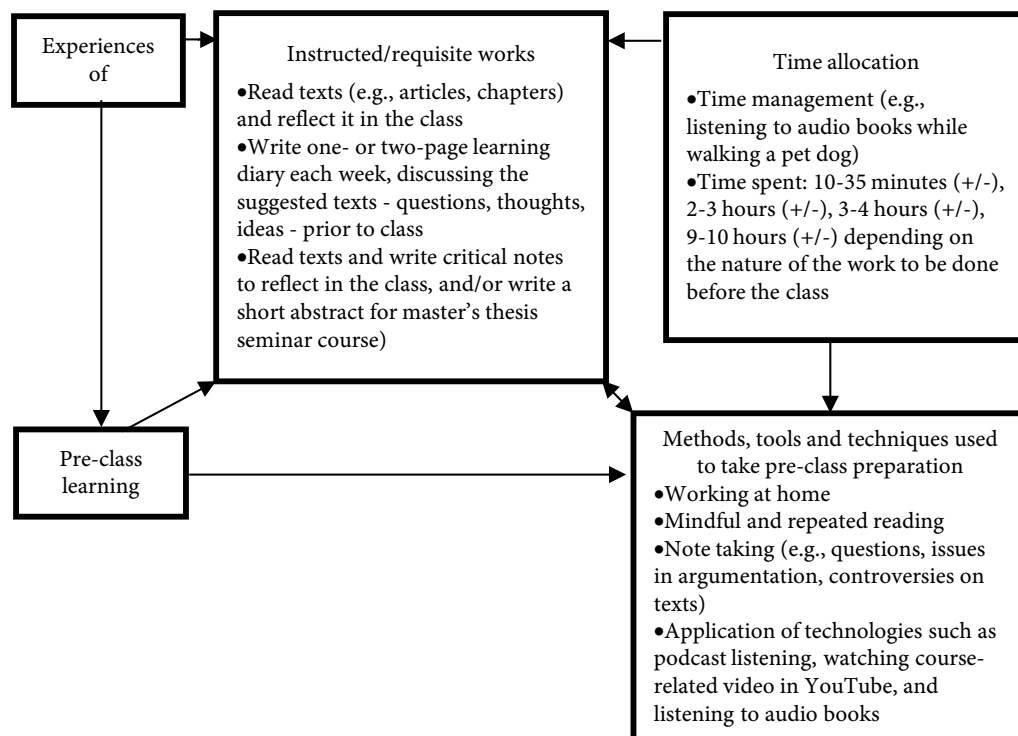


Figure 1. Students' experience of pre-class preparation.

notes discussing the suggested texts; or write a short abstract for a master's thesis seminar course.

Time allocation and techniques of pre-class preparation varied from student to student depending on the complex nature of their interest, perseverance, endurance, technical know-how, physical and mental satisfaction, and above all on the structure of the course(s) they took. They were able to accommodate their course-related preparation even when walking outside with a dog or passing the time in the gym. The opposite was observed by [Rajala and Sannino \(2015\)](#) for the cases of some school students. Three students undertaking different language courses invested a couple of hours in taking preparation for the class by reading or translating course-related texts before the class. Some other students, when interviewed, spent one half to two or more hours completing their pre-class work. Two students stated that having physical exercise could also contribute to pre-class preparation. Students of the Social and Public Policy and Sociology disciplines said that for pre-class preparation, they typically spent four to five hours. One student stated that it took eight to ten hours for him to look for relevant articles on thermodynamics.

Students used various methods, tools and techniques to accomplish their instructed pre-class learning. For instance, working at home, careful and repeated reading, note-taking (e.g., questions, issues in argumentation, controversies of texts), application of different technologies such as podcast listening, watching a course-related video in Youtube, and listening to audiobooks helped them to accomplish their pre-class preparation. As such, the students used their tech-

niques and performed different activities to achieve their desired outcome in a specific course (see also Biggs, 1999). For instance, ID-14 said,

My methods include usually presenting myself with questions about the subject and then trying to tackle them with my argumentation. If argumentation is found wanting, I add that part to my notes as well. The last time I read through materials and made notes at the same time. These notes included questions, issues in argumentation, controversies of different texts and my overall contemplation on the future of the critical problems.

4.2. Motivation, Obstacles, and Overcoming Strategies (RQs—4, 5, 6, 7)

As observed in Section 4.1, allocation of time and in-class accountability (an obligation), for instance, are two extrinsic factors that influenced students' motivation for pre-class preparation and, therefore, they applied different methods and tools to get prepared. Most answers included positive self-evaluations and reflections of intrinsic motivation (see also McCune & Entwistle, 2011). The students thought, in general, that preparations helped and lowered the barriers to participate in the discussions. One answer even underlined an altruistic nature of motivation: "I wanted to be helpful to the other student and to get feedback on my own work" (ID-7). Students also recognised that the compulsory nature of tasks mattered. For instance, ID-18 argued, "I did that [pre-class preparation] often during my undergrad years, but these days I rarely do it since we do not have obligatory attendance in class. In a recent geography course, we had to read some articles at home and present them to the entire class". Although we did not intend to identify when students represent a deep, strategic or surface learning approach, these were evident while dealing with students' motivation to take pre-class preparation. For instance, the application of deep learning approach was expressed by ID-1 who took pre-class preparation irrespective of whether it was obligatory or not and aspired to be a high school literature teacher: "Interested in literature in general, so would have read them even without the course." On the other hand, students also expressed reasons for choosing a surface approach: "if it is about some presentation or written tasks, I do it just because I want to pass my course" (ID-12). In response to an "obligatory" pre-class preparation, we also observed the adherence of the strategic learning approach, viz ID-13

It is difficult to discuss the subject without preparation, and it is not useful if the new material, which is meant to be taught through these discussions, is not familiar to participants. I think that by being prepared, there is a better chance for a deeper discussion and to learn something new.

When we asked the students to reflect on the obstacles and challenges of pre-class preparation, interviewees identified most barriers were personal. However, the most common problems were bad or unclear instructions and too hard or

time-consuming preparation tasks. If the course material, both manual and digital, was not easily achievable, the motivation dropped evidently. Less supportive or non-supportive peer/group works also impeded their preparation. However, not all the answers blamed the external conditions. For instance, ID-4 said, “The motivation has not been the key problem. Finding the right balance and scheduling the homework has been difficult.”

Students also shared their strategies to tackle those obstacles (Table 1) in addition to the obvious and common answers, such as improving time management, strategies to tackle the obstacles in learning varied significantly. Some students were more eager to ask for direct peer-help (e.g., via Facebook) whereas some others found autonomous learning processes more meaningful.

Based on their motivation and available motivators, students tackled the barriers they face in preparing for class (Figure 2). While identifying motivators for pre-class preparation, students showed a great emphasis on personal curiosity

Table 1. Obstacles and overcoming strategies to conduct pre-class preparation.

Obstacles	Overcoming strategies
<p><i>Personal deficiencies and indiscipline</i></p> <ul style="list-style-type: none"> • Difficulties in finding the right balance and scheduling the homework • Sometimes time is an obstacle as attending courses collapses with other work • Procrastinating personality • Lack of interest to take preparation • Difficulties in finding reliable, high-quality journals and relevant articles • Limited knowledge in the course • Unfamiliar vocabulary and themes require reading more than once • The content of articles in a reading seminar could be partly quite difficult and would require more reading. • <i>Weak or incoherent peer/group support</i> • Lack of timely peer-support or non-cooperation from group members. • <i>Unavailability of resources</i> • Unavailability of relevant books in some cases <p><i>Incoherent and faulty instruction</i></p> <ul style="list-style-type: none"> • Unclear instructions • Handouts can be vague, a couple of one-word bullet points per slide or just pictures and illustrations without any further explanation • Get bored in lecture when the professor discusses texts and theories, very unfamiliar with and detached from the students' knowledge • If the material in the “Moodle” is not well structured, and if there is a feeling of “forcing” and pressure, the probability of doing the tasks gets lower. • Sometimes the texts are difficult to understand because they are edited and out of context. Pre-readings with a heavy subject matter or written in a dull or “aged” way demotivate 	<p><i>Time and concentration management</i></p> <ul style="list-style-type: none"> • Motivating self to schedule time to read texts, setting smaller goals for the day, and organising the personal life • Trying to be as efficient as possible: when thoughts are drifted, taking a short break could regain energy back to do the work <p><i>Strategic learning</i></p> <ul style="list-style-type: none"> • Starting from the basics, not trying to rush the harder things • Applying trial and error strategy by skimming through several research articles (reading mainly abstracts) to find the most relevant ones • Studying autonomously and in a deliberate way • Exploring related literature, especially books that approach the topic a little differently from how the teacher does it • Sketching out a whole scheme tree of how an assigned concept is related (connected, branched) to the basic root idea (the tree trunk). <p><i>Use of multiple resources</i></p> <ul style="list-style-type: none"> • Using multiple relevant books, dictionaries, google and Wikipedia to know the unknown vocabulary and understand concepts <p><i>Seek peer-help</i></p> <ul style="list-style-type: none"> • Chasing the topic related things up on Facebook and asking for a rough guide from friends • Asking classmates how they understood a given task <p><i>Use of technologies</i></p> <ul style="list-style-type: none"> • Watching topic-related YouTube-videos • Listening to podcasts, which could save time compared to reading

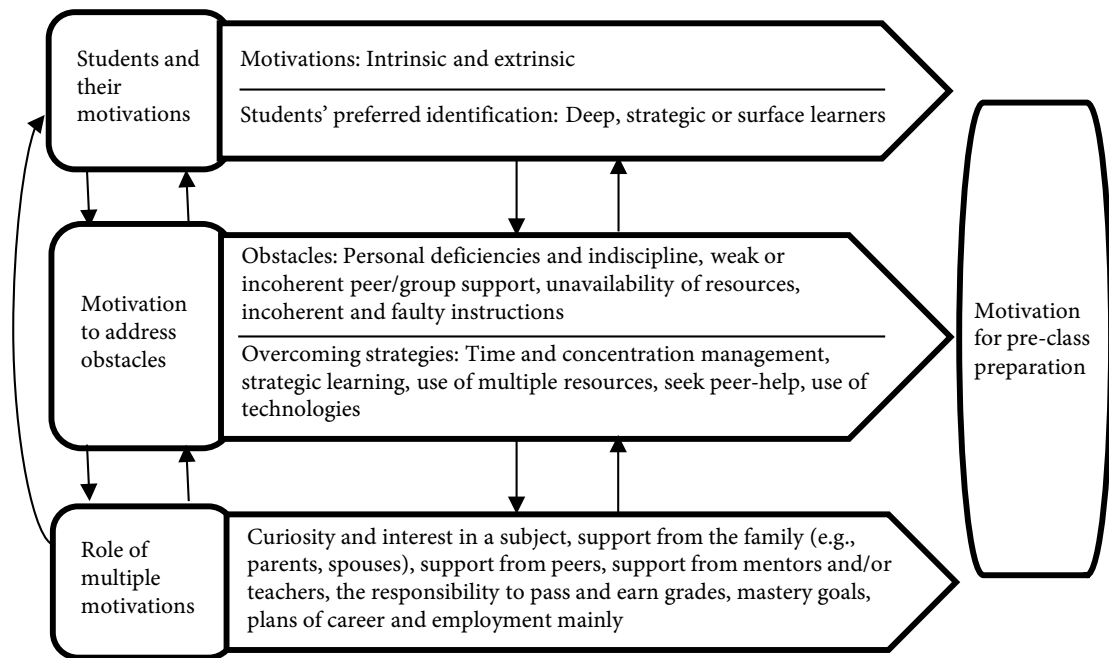


Figure 2. Students' motivation for pre-class preparation.

and interest in their field. For instance, one student stressed, “I enjoy social sciences and have familiarised myself with a lot of social issues during my lifetime. I have lots of personal experience of various social topics, which most young students probably are not yet familiar with” (ID-10). Not only personal interest but also peer-pressure motivated their pre-class preparation: “I presented my findings to a peer group. The group work relied on people preparing in advance, so this peer-pressure certainly motivated me” (ID-15). They also listed other motivators: support from the family (e.g., parents, spouses), support from mentors or teachers, the responsibility to pass and earn grades, plans of career and employment.

As Pintrich (1999) suggests, adopting a mastery goal orientation is the most adaptive goal orientation for self-regulated learning. Bieg, Reindl and Dresel (2016) have pointed out in their research that students' mastery goals predicted their intrinsic motivation. In this paper, the answers indicate that if the course material is too difficult, time-consuming, or not easy to access, the mastery-oriented learning strategies occur less often.

As observed, having intrinsic and extrinsic motivations students followed a deep, strategic or surface learning approach and multiple motivators influenced them to take pre-class preparation. Therefore, their motivation inspired them to tackle the obstacles they encountered and get themselves prepared for the class in advance.

4.3. Impact of Pre-Class Preparation (RQs—8, 9, 10, 11, 12)

Although mostly obligatory, students' interest in the subject and their intention to comprehend were evident in their preparation (see also Entwistle & Peterson,

2004). Students found, in general, that the preparation helped them to participate more actively in the class and take part in class-discussion: “It is easier to get a grasp of the themes when prepared. Usually, questions come to mind after class, but when you have prepared for the session, there might already be questions that you are looking for to be answered” (ID-13). Preparation made it possible to understand teachers’ reasoning and fix some errors in the ways one had conceptualised the material or wrongly understood some parts. In those cases, the students were benefited by going over some most important topics in a discussion.

Furthermore, ID-5 argued, “it helps us who are a bit shyer. If you have some questions and comments written down, it is easier to engage with the discussion.” Preparation made it also possible to compare one’s solution to those of other students and, thus, enabled learning from both others’ mistakes and their good solutions. However, they also found that the presence of unprepared or under-prepared students and hard or unclear materials or instructions could affect the whole dynamics of the lecture.

Students argued that pre-class preparation mattered in class performance. According to the students, preparation was crucial for their class performance. Pre-class preparation was helpful to students to get a deeper understanding, follow the lecture more effectively, and fruitfully participate in discussion with confidence. For instance, ID-7 argued, “I performed much better for being prepared and had more confidence during the final defence that the presentation was effective.” Pre-class preparation discussions in the class as formative assessment eased students’ stress arising from final papers or examinations. While such preparation was associated with higher grades (e.g., ID-7), some students did not find any pronounced effect of pre-class preparation on their grades. On the contrary, as ID-12 argued, “Usually if it is a lecture course with an exam, I do not use much time for preparing for classes/exam, and I get grade 4. Furthermore, if it is a course that includes some more compulsory preparation, I get grade 5 (if I am just interested in the topic).”

In terms of mental satisfaction, many students felt they had gained more from the course because of their pre-class preparation. Pre-class preparation supported students’ self-image and made them think that they were “good students” as they did “more” (i.e., took pre-class preparation) for the class. Their observation, how the assignments and reading material supported their learning, also increased their motivation. However, some students were not sure whether preparing for the classes made the course more satisfying. Bad learning material also lowered their satisfaction: making students do more individual work is not a panacea for making the students more engaged with the course.

Most students felt that studying in advance did not affect their credibility among their peers. For instance, ID-10 argued, “I certainly have not gained any credibility or acceptance because of what and how I study from my peers... I do not think what or how I study has affected my grades; I am doing all right.” They considered it indecent to show in front of peers that one “knows more than one

should” (ID-18). In smaller groups, however, it made the students feel a tighter connection with one another. On some courses, the teacher gave individual feedback on the mandatory assignments, which the students perceived as a positive thing. The lack of feedback from teachers in other courses did not contribute to improving students’ attainments.

Additionally, “feedback on final assignments” was criticised by the students since it failed to create any impact on their preparation. Here the students indicated the role of feedback in formative and summative assessments. Feedback given with summative assessment was not effective to them to take further preparation and improve their attainments in a given course.

According to students, pre-class preparation, as another impact, helps to see the learned concepts and knowledge as a part of a bigger whole, making it possible to relate it to other topics as well. For instance, ID-8 put it as “getting a better mindset for the topics of the course, as in being better able to understand the topics discussed on the course.” This mindset provoked conceptual change and a deeper understanding of the themes (see also Biggs, 1999). The knowledge acquired in such a way is also undoubtedly beneficial in their future work life.

4.4. Advance Learning and Students’ Expectations (RQs—13, 14, 15)

When asked about whether they thought that advanced preparation suited their preferred personal learning style (RQ-13), most students (10 out of 18) reported that they were happy with putting time and effort into the pre-class preparation. Students also mentioned some benefits of pre-class preparation that influenced them (sections above explain most thoughts on those benefits). Some students further added that they would like to take more preparation-oriented courses and they also found, “sometimes there is potential reading, but it is not assigned” (ID-9). Traditional lectures, however, were not disfavoured. Some students, on the contrary, thought that the pre-class preparation did not normally suit their learning style but opined that it was effective for particular courses (e.g., translation courses). Students also mentioned that difficult, unclear, very strict and rigid instructions and too much work demotivated them, and they prepared since it was mandatory. While reading texts was preferred, a few students disliked writing assignments as a pre-class preparation task due to their time management problem, laziness, or unwillingness to demonstrate what they had read.

Also probed was the awareness of students as to why this technique is used frequently in teaching (RQ-14). Students had, in general, a very good understanding of why teachers provided material in advance (Table 2), particularly for its encouragement of deep learning (see also Biggs, 1999; Entwistle, 2000). They opined that the desired outcome of the teaching technique was students’ better engagement with a subject. Moreover, they realised that their motivation to study in advance would also suffice.

Table 2. Students' view on reasons for including pre-class learning by teachers.

Reasons for including pre-class learning by teachers
<ul style="list-style-type: none"> • To keep students focused on the general themes of the course. • To focus class-learning at a higher level (e.g., analysis, than just fact learning). • To enable students to follow the discussion better. • To help students to reinforce the ideas in the lesson. • To enable students to find it easier to understand complicated concepts. • To help and deepen learning in a limited time frame. • To test students' motivation and engage them in the course. • To make sure it is possible to do some interactive assignments during class (e.g., discuss in pairs or groups) • To save time from needless lecturing (if the material is easily understandable) and to allocate more time for (creative) discussion. • Overall, to optimise the learning process.

In response to frequency of the usage of pre-class preparation technique, students displayed their enthusiasm in two directions namely enthused and unenthused, which produced five categories: 1) opposition, 2) restricted usage, 3) conditional usage, 4) unconditional usage, and 5) synergic usage. Students categorised thereby also expressed their feelings and expectations regarding their pre-class preparation. Students' responses also indicate that those usage categories could be interchangeable in some contexts. These categories, related feelings and expectations, and interchangeability of those usage positions among students (**Figure 3**) are explained below.

Some students were unenthused by the prospect of increased usage of the technique (pre-class preparation) in their classes (RQ-15). These students formed two categories: 1) opposition, and 2) restricted usage (**Figure 3**). Two students directly opposed the prospect of increased usage of pre-class preparation in terms of materials to be provided in advance. "Classes are meant to be for learning the material" (ID-3), and "students could individually search more information on a course of their interest" (ID-12) were considered the reasons for not obligatorily increasing the usage of pre-class preparation. Students could voluntarily use different materials in advance based on their interest. Although unenthused, some (three) students expected restricted usage of a reasonable amount of advance-materials only where necessary as an obligatory task. Students representing these two categories considered that not obligatory, but voluntary (as optional) usage of pre-class preparation could be useful.

The prospect of increased usage of the technique (pre-class preparation) enthused students. Most students appreciated a conditional and mainly obligatory usage of pre-class preparation. Many positive-minded students mentioned a lot of conditions mostly related to the well-structured, clear and brief and specific instructions (see also **Han & Klein, 2019**). They opined that use of diversified methods (e.g., online materials, "Moodle" discussion forum), discussion-oriented classroom interactions, fair grading and rewarding "those students who actively are putting effort to learn autonomously!" (ID-6) would attract more students to

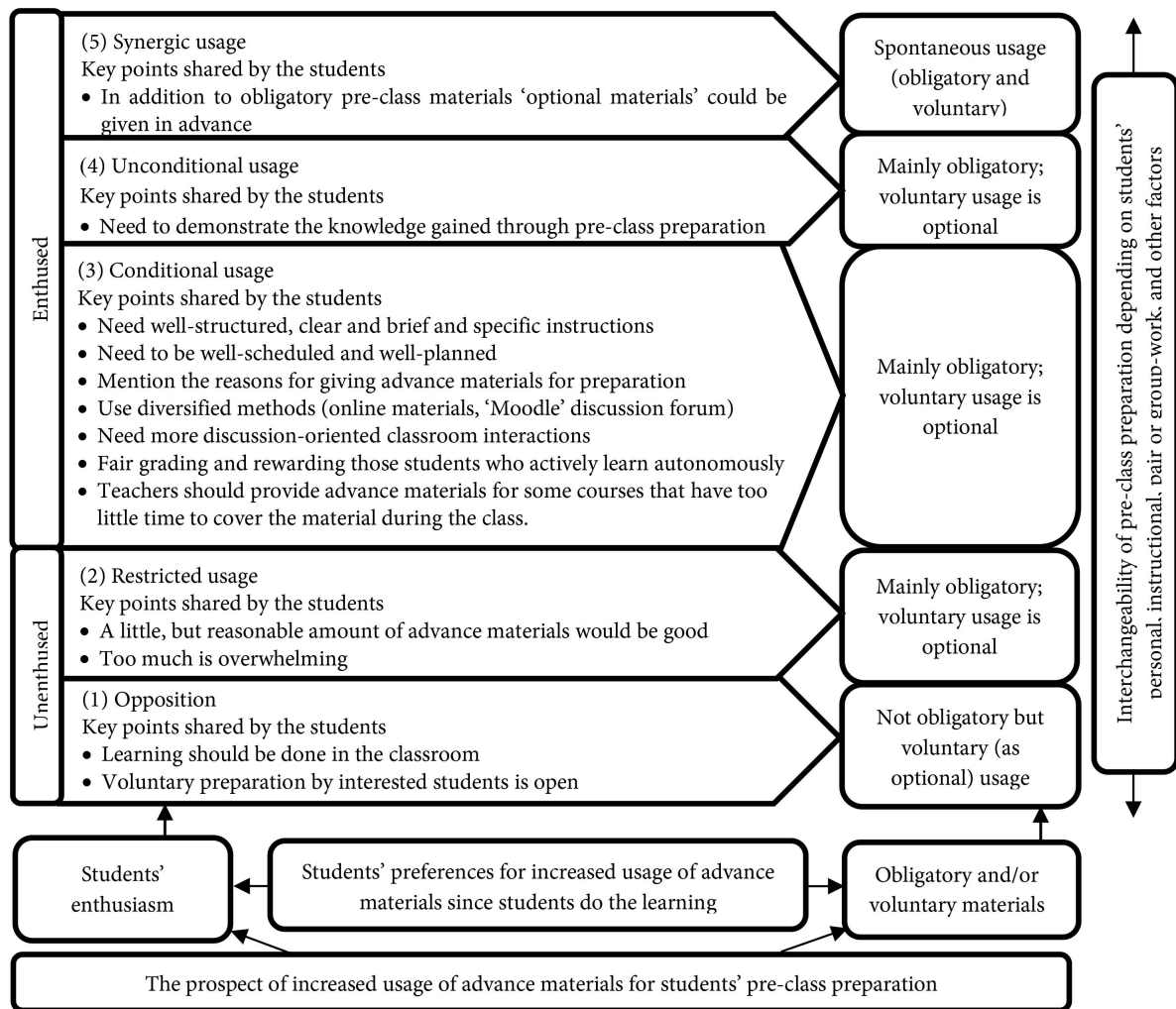


Figure 3. Students (un-)enthusiased by the prospect of increased usage of advance/pre-class preparation.

take those courses. Students argued that increased usage of pre-class preparation would be necessary for “some courses [that] have too little time to cover the material during the class” (ID-1). Three students unconditionally agreed with the increased usage of the technique in different courses. To them, demonstration of knowledge gained through pre-class preparation in the classroom was highly important.

Additionally, a group of enthused students argued for a synergic usage of advance course materials. It is synergic in the sense that both voluntary and obligatory usage of study material provided in advance would benefit students and enhance their performance. Students also argued that in addition to obligatory pre-class preparation, “optional materials” could be given in advance so that those “willing to put more effort in studying, would have a chance to do so” (ID-13). One enthusiastic student argued, “I prefer to receive all course materials in advance so that I can work at my own pace, rather than preparing for one class in particular” (ID-9). Another enthusiastic student informed, “Sometimes lecturers had started putting material online before class because I requested so”

(ID-18).

Students' responses also indicate that those 1) opposition, 2) restricted usage, 3) conditional usage, 4) unconditional usage, and 5) synergic usage categories could be interchangeable. Different personal (e.g., interest in the course), peer/group work-based, and instructional factors mentioned in Sections 4.2 and 4.4 cause that interchangeability among students.

5. Conclusion

Although teachers design pre-class preparation activities to engage students in deeply learning processes, the results of pre-class preparation experience of students indicate that they can choose a learning approach depending on multiple factors that reflect their enthusiasm. Pre-class preparation may suit some students' learning, while others may not prefer it but for exceptional reasons (e.g., interest in the subject). There thus existed a dichotomy between acceptances of the teaching technique. Students indicated that they were aware of the reasons that deep learning is the key goal of preparatory work, in terms of its impact on their engagement, intrinsic motivation, and academic performance. Interestingly, despite an awareness of the benefits, some students were indifferent or hostile to increased use of preparatory work in their classes. Nonetheless, it is preferable to provide more pre-class preparation to encourage deep learning strategies, notwithstanding any potential demotivating impact this might have.

The answers demonstrate that the role of well-structured course platforms should be acknowledged to provide students with a mastery-oriented motivation. All course materials, whether manual or online in form, should be easily accessible with clear instructions. In general, the students felt that the feeling of participation should be encouraged, and extra materials should be available for those who wish to learn more autonomously. If teachers plan the content properly, it seems that teaching style that supports deep learning has a positive impact on the learning outcome. In general, the students indicated that if teachers provide preparation material in a structured manner (and direct towards specific learning outcomes), the preparatory work might be better perceived as an integral part of the course, helping student engagement and fostering deep learning. This is viewed as making it easier to participate in the lectures and provokes a deeper understanding of the themes. However, these findings are solely based on an academic learning environment and also variation of the subject and type of teaching has not been addressed.

To boost up their enthusiasm for pre-class preparation, students should have a clear idea about the reasons for taking pre-class preparation on an "obligatory" or "optional" basis. Students' self-set standards such as motivating self to schedule time to learn (read texts from hard copies and soft copies, watch relevant videos or listening to course related audios) and do pre-class assignments, setting achievable goals for every day, and organising the personal life can fruitfully help them to take pre-class preparation. The course instructor and/or course

teacher should make the teaching environment motivating, attractive and rewarding, which would influence students to take pre-class preparation. As extrinsic motivating factors attractive and systematic course design that has necessary and specific instructions, sources and links to reading materials, peer support and supportive teamwork (when and where required), and continuous support from the course teacher could enhance students' enthusiasm for pre-class preparation. These extrinsic motivating factors and stated self-set standards of the students would be a doorway to mastery goals and deep learning.

This study has many implications for students, teachers, and researchers. While earning a desired grade or simply passing in a course may be the learning approach to some students, true mastery of a subject can be achieved if a deep learning approach is applied. Since pre-class preparation supports a deep learning, what motivated students and how they took preparation despite different barriers they encountered may inspire and guide other students to choose and design their tools and technique to take pre-class preparation. The comments indicating teaching instructions may inspire and direct teachers to be more concentrated and careful while crafting a course module. Academicians and researchers may also ponder the barriers and factors that demotivate pre-class learning. What makes the students more inspired to take pre-class preparation using a deeper learning process is also an important aspect to be addressed in the future.

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Authors' Contributions

Abstract and keywords, M.A.H. and J.A.G.; conceptualisation, M.A.H. and J.A.G.; literature reviews, M.A.H. and J.A.G.; writing—original draft preparation, M.A.H.; figures and tables, M.A.H.; writing—review and editing, J.A.G.; handling reviewers' comments, M.A.H.; project administration, M.A.H. and J.A.G.

Conflicts of Interest

There is no conflict of interest regarding the publication of this paper.

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Appendix

Appendix 1. Demographic Profile of Students

ID*	Age	Gender	Nationality	Native language	Discipline	Level of study	Principle language of study
1	26	Female	Finnish	Finnish	Nordic language	Master's	Swedish/ Finnish
2	21	Female	Finnish	Finnish	Russian translation	Bachelor	Russian/ Finnish
3	25	Female	Finnish	Finnish	Spanish Philology	Bachelor	Spanish/ Finnish
4	39	Male	Finnish	Finnish	History	Master's	Finnish
5	22	Female	Hungarian-Dutch	Finnish	History	Bachelor	Finnish
6	22	Male	Finnish	Finnish	History/ Mathematics	Master's	Finnish
7	31	Female	British	English	Art & Design	Master's	English
8	25	Male	Finnish	Finnish	Biochemistry	Master's	English/ Finnish
9	26	Male	Finnish	Finnish	Biology	Master's	English
10	46	Female	Finnish	Finnish	Sociology	Master's	English/ Finnish
11	24	Female	Finnish	Finnish	Social & Public Policy	Master's	English/ Finnish
12	28	Male	Finnish	Finnish	Social & Public Policy	Master's	English
13	31	Female	Finnish	Finnish	Social & Public Policy	Master's	English/ Finnish
14	25	Male	Finnish	Finnish	Social & Public Policy	Master's	English
15	26	Male	Finnish	Finnish	Social & Public Policy	Doctoral	English
16	28	Female	Finnish	Finnish	Social Research/ Environmental Policy	Doctoral	English
17	25	Male	American	English	Development studies; Social Sciences	Master's	English
18	24	Male	Finnish	Finnish	Geoscience	Master's	English

*ID represents serial number given to the interviews.

Appendix 2. Interview Guide

Date of interview

Duration (total time spent for the interview)

Basic information

Nationality, Gender identity, Age, Native languages

Discipline, Level of study, Language of study

Research questions

RQ-1 Do you have experience with preparing for a class in advance?

RQ-2 When did you last prepare in advance for a class? Which course was it?

RQ-3 How long did you prepare for, what did you do? What techniques and methods did you use?

RQ-4 Why did you do that? What was your motivation?

RQ-5 What were the obstacles and challenges?

RQ-6 How did you tackle the obstacles?

RQ-7 Is there anyone or anything that is motivating you to study outside of class?

RQ-8 Do you think studying in advance of a teaching session helps you to engage with discussion, or follow the information within a class?

RQ-9 What do you think was the impact of the preparation to your class performance, and grades?

RQ-10 What was the impact on your mental satisfaction with the course?

RQ-11 Was there any impact to your credibility and acceptance among peers, or feedback from teacher?

RQ-12 Were there any other impacts resulting from studying in advance?

RQ-13 Does pre-class preparation suit your personal learning style?

RQ-14 Why do you think that teachers provide material to study in advance?

RQ-15 Would you like more classes to provide material in advance?