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“You’re not learning skills—you’re just realizing what you can do”: a preliminary study of self-regulation in higher education

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Introduction: This preliminary study employs a phenomenological approach to investigate the phenomenon of self-regulated learning among higher education students in the United Kingdom. The research seeks to identify both facilitators and challenges associated with effective self-regulated learning, shedding light on the factors that influence students’ ability to manage their own learning processes.

Methods: The study used in-depth interviews with students and employed thematic analysis to explore the experiences of self-regulated learning. Through this qualitative approach, key themes emerged, including motivation, the learning process, support systems, planning, and group dynamics.

Results: Noteworthy findings include the significance of clear guidelines regarding study hours and designated learning environments for students. Themes such as the learning process, planning, and group dynamics were highlighted as crucial factors in effective self-regulated learning. Additionally, motivation and the role of support systems were found to play essential roles in students’ learning outcomes.

Discussion: The findings suggest that even students who exhibit autonomous motivation benefit from additional tools and support mechanisms to enhance their self-study practices. Educators are encouraged to integrate activities that foster learning strategies and promote social relationships within student groups. The study emphasizes the importance of creating structured learning environments and support systems to facilitate effective self-regulated learning for all students.

KEYWORDS

United Kingdom, self-regulation, learning theory, phenomenology, student perspectives, higher education

1 Introduction

Self-regulated learning (SRL) stands as a cornerstone in contemporary educational paradigms across the globe, transcending various levels of academia (Taranto and Buchanan, 2020). At its core, SRL embodies the individual’s ability to assume control over their educational voyage (Boekaerts, 1999; Kremer-Hayon and Tillema, 1999; Zimmerman, 2002, 2015). Within this framework, self-regulated learners exhibit a proactive approach, actively molding their thoughts, emotions, and behaviors to navigate towards their learning objectives (Tillema and Kremer-Hayon, 2002). This concept of self-regulation encompasses a rich

tapestry of cognitive, metacognitive, motivational, and affective processes (Boekaerts, 1999). Cognitive processes involve the strategic planning and execution of learning tasks, encompassing activities such as goal setting, organizing materials, and monitoring progress. Metacognitive processes, on the other hand, pertain to the awareness and regulation of one's cognitive activities, including self-assessment, reflection, and adaptive adjustments to learning strategies based on feedback. Motivational processes play a pivotal role in SRL, influencing learners' engagement, persistence, and effort allocation. Lastly, affective processes encompass the management of emotions and attitudes towards learning, shaping learners' perceptions of task difficulty, interest, and efficacy (Taranto and Buchanan, 2020).

The cultivation of self-regulated learning is not solely confined to the restraints of formal education but extends into lifelong learning and real-world contexts (Zimmerman, 2002, 2015). In today's rapidly evolving landscape, characterized by information abundance and technological advancements, the ability to regulate one's learning becomes increasingly indispensable. Individuals equipped with robust SRL skills possess the adaptability and resilience needed to navigate through complex challenges, continuously acquire new knowledge, and thrive in diverse personal and professional spheres (Boekaerts, 1999; Kremer-Hayon and Tillema, 1999; Zimmerman, 2002, 2015). In essence, SRL serves as a catalyst for transformative learning experiences, empowering individuals to become architects of their own educational destiny. As educators and researchers delve deeper into understanding the intricacies of self-regulated learning, they unveil a plethora of opportunities to enhance educational practices, foster student autonomy, and cultivate lifelong learners primed for success in the dynamic landscapes of the twenty-first century.

Interventions designed to bolster students' SRL are commonly believed to enhance academic achievement. This assumption stems from the notion that such interventions directly facilitate SRL activities, thereby positively influencing students' learning outcomes (Jansen et al., 2019). In higher education, specifically, SRL represents a dynamic and empowering approach to academic achievement (Zimmerman, 2002, 2015). It places the learner at the center of the educational process, equipping them with the tools and strategies to take ownership of their learning journey. In this context, students become active participants in their education, engaging in goal setting, planning, monitoring, and reflection to optimize their learning outcomes. Namely in higher education, fostering self-regulated learning is essential for preparing students to thrive in an increasingly complex and dynamic world (Taranto and Buchanan, 2020). It cultivates skills such as critical thinking, problem-solving, and self-reflection, which are crucial for success both in academia and beyond. Moreover, SRL encourages a lifelong commitment to learning, empowering individuals to adapt and evolve in response to changing circumstances and new challenges.

Alas, SRL in higher education can be a double-edged sword (Roth et al., 2016). On one hand, it empowers students to take control of their learning process, fostering independence and critical thinking. On the other hand, it can present challenges that students might struggle to navigate effectively. Addressing these issues requires a multifaceted approach (Roth et al., 2016) where ultimately, fostering a culture that values and promotes self-regulated learning is essential for empowering students to thrive in higher education and beyond. This article outlines a preliminary phenomenological case study examining the experiences of a small sample of higher education

students as they engage in self-regulated learning practices. The aim of this study is to gather initial data on the factors influencing effective self-regulated learning and the challenges faced by students in this context. By delving into the nuanced experiences of students, the study seeks to provide valuable insights that can inform the design and execution of a larger-scale research project.

2 Materials and methods

This article adopts an Interpretative Phenomenological Analysis (IPA) approach, a qualitative research methodology tailored to delve deeply into individuals' subjective experiences. IPA stands out for its pragmatism, necessitating a sample that not only readily participates but is also small enough to facilitate thorough exploration and the crafting of detailed descriptions (Smith and Nizza, 2022). The primary objective of IPA extends beyond uncovering shared themes; it aims to illuminate potential variations in individual experiences, even within a relatively homogeneous sample, thereby identifying inter-individual differences related to specific phenomena within a well-defined context (Smith, 2017; Smith et al., 2009). In this study, IPA was employed with students enrolled in a social sciences module. This module delved into the complex interaction of social, cultural, biological, and evolutionary elements within the realm of health and disease, with the author of this article acting as the facilitator. Employing a comparative IPA approach, the study examined six unique case studies through in-depth semi-structured interviews, each lasting between one to two hours.

In this context, the application of IPA allows for the investigation of how individuals make sense of their personal and lived experiences within a specific phenomenon. The approach values both the commonalities across participants and the subtleties of individual difference, making it ideal for exploring subjective interpretations that are often nuanced and context dependent. As Smith et al. (2009) highlight, IPA engages with both the "what" and the "how" of experience—not only focusing on the content of what is shared but also the processes through which individuals make meaning of their experiences. This focus on meaning-making is particularly important in the present study, where participants are grappling with complex emotional or social challenges. For example, if the research focuses on individuals managing a chronic illness (for illustrative purposes), IPA would allow for the researcher to delve into both the shared experience of living with the illness and the distinctive ways in which different individuals cope with and interpret their condition. One participant might focus on the physical limitations of their illness, describing their frustration and sense of loss over what they can no longer do, while another may emphasize the psychological adjustments they have made, framing their experience in terms of personal growth and resilience. IPA's strength lies in its ability to engage with these different layers of experience, paying close attention to the context in which these meanings are constructed.

In addition, IPA requires a reflective and iterative engagement with the data. The researcher does not simply extract themes from the interviews but actively engages in a dialogue with the data, constantly revisiting the transcripts to ensure that the interpretations are rooted in the participants' own words and perspectives. This process is both inductive and deductive. While themes emerge from the data (inductive), the researcher also brings their theoretical understanding and

interpretative framework to bear on the analysis (deductive). This dual focus allows for a richer understanding of the phenomena under investigation. Moreover, one of the defining features of IPA is its idiographic commitment, which seeks to understand each case in its own terms before moving to a broader, more general level of analysis. This means that each participant's story is carefully explored in detail, with attention to the specific language they use and the way their experience unfolds. Only after this detailed examination is it possible to move toward identifying patterns across cases. For instance, in a study on coping mechanisms among individuals with chronic illness (cf. Hill and Frost, 2020), one participant might articulate their journey as a battle, using language filled with metaphors of war and survival, while another might talk about their experience in terms of adaptation, emphasizing balance and acceptance. IPA allows for these differences to be examined deeply before drawing any cross-case comparisons.

Finally, the IPA approach requires a high degree of reflexivity. The researcher must remain aware of how their own assumptions, values, and background influence their interpretation of the data. Reflexivity is not only a methodological requirement but also an ethical one, as it helps to ensure that the voices of the participants are heard and respected in the analysis. The researcher may engage in reflexive journaling or discuss their emerging interpretations with colleagues to ensure that they are not imposing their own meanings onto the participants' experiences. This reflexive stance is especially important in IPA, given its interpretative nature and the depth of analysis it requires.

2.1 Study participants

This preliminary study included six participants, all first-year undergraduate students at a university in England (UK). To ensure confidentiality, they are identified as Participants A to F. Their ages ranged from 18 to 21, with four female and two male students represented. While this study features a small sample size, it provides valuable initial insights that can inform the design and execution of larger-scale research projects (Smith et al., 2015). Despite the limited number of participants, preliminary studies like this one can offer meaningful data that lay the groundwork for more comprehensive investigations. Additionally, the voluntary participation and provision of informed consent from all participants underscore the ethical considerations upheld in the study.

Notably, all participants were of White (British) descent, mirroring the ethnic composition of the module's student body. It is important to acknowledge that this homogeneity presents a notable limitation. Alas, the author's access was constrained to this specific group of students, thus limiting the diversity of perspectives and experiences represented in the study. This lack of diversity may impact the generalizability of the findings and the extent to which they can be applied to broader populations with differing backgrounds and experiences. Therefore, future research endeavors should strive to include a more diverse range of participants to ensure a comprehensive understanding of the phenomenon under investigation.

2.2 Analysis

The interviews underwent transcription and analysis following the Interpretative Phenomenological Analysis (IPA) method, as

outlined by Smith et al. (2009) and Smith and Osborn (2007). The analysis process unfolded in several stages. Initially, the transcripts were meticulously read and re-read to ensure a comprehensive understanding of the content. The second step involved initial notations. This phase commenced with descriptive observations and then delved deeper into linguistic aspects, focusing on the nuanced meanings behind statements. This encompassed notes on the use of metaphors, recurring patterns, and the functional aspects of language that offered additional insights into the participants' perspectives. Following this initial stage, the next step in the analysis was the development of emergent themes. Here, the focus shifted from the transcript itself to the notes and comments that had been made during the previous phase. The aim was to distill the participant's experiences into more abstract conceptual themes that reflected both the content and meaning of what was said. This involved identifying patterns in the data and grouping similar ideas under thematic headings. At this point, the researcher aimed to balance staying true to the participants' voices while also bringing their own interpretative lens to the analysis.

For instance, in one interview, a participant might describe their struggle with isolation while managing a chronic health condition during their studies. Initially, the descriptive comments would focus on the specific experiences of loneliness and the physical and emotional challenges described. In the emergent themes phase, however, these detailed notes might lead to broader conceptual ideas such as 'social disconnection,' 'loss of identity,' or 'the invisible burden of illness.' These emergent themes would then serve as building blocks for the overarching analysis, linking individual experiences to wider social and psychological constructs. The next stage involved searching for connections across emergent themes. This was done by mapping out how different themes related to each other, which often led to the formation of clusters of themes that shared common elements. During this phase, several techniques were used, including abstraction, which grouped similar themes under a higher-order category; subsumption, where one theme became a superordinate concept absorbing another; and polarization, where contrasts between themes were identified to highlight conflicting aspects of participants' experiences. For example, themes related to 'agency' and 'dependency' might be juxtaposed to explore the tension between autonomy and reliance on others.

At this point, the analysis moved from a descriptive to a more interpretative level. Interpretations were rooted in the detailed reading of the text but extended to consider broader psychological and social processes. The researcher engaged in a dialogue with the data, constantly revisiting the transcript to check that interpretations were grounded in the participants' words while also considering how their own perspective shaped the analysis. This stage often revealed new insights that had not been immediately apparent in the earlier stages of analysis. For example, while an initial theme might have been focused on 'coping strategies,' deeper analysis might uncover an underlying theme of 'resistance' or 'resilience,' suggesting that participants were not merely adjusting to their struggles but actively pushing against the limitations it imposed on their lives.

After developing a coherent narrative for each individual case, the final stage of the IPA process involved looking for patterns across cases. This was crucial for identifying shared experiences while also recognizing unique elements of individual stories. Cross-case analysis allowed the researcher to highlight common themes that ran through multiple interviews, but also to explore how different individuals

engaged with similar issues in distinct ways. For example, while many participants might express feelings of frustration about the unpredictability of their situation, their coping strategies could vary widely, from seeking social support to relying on inner resources or spiritual practices. These differences would be explored in the final write-up to ensure a nuanced and multi-layered account of the data. Throughout the entire process, reflexivity played a critical role (Smith et al., 2009; Smith and Osborn, 2007). The researcher continually reflected on how their own experiences, assumptions, and theoretical leanings might influence the analysis. This was particularly important in ensuring that the interpretative nature of IPA did not lead to over-interpretation or the imposition of the researcher's own views on the data. Regular memo-writing and discussions with colleagues were key strategies to maintain this reflexive stance and to ensure that the final analysis was both rigorous and faithful to the participants' experiences.

In sum, the IPA approach, with its emphasis on detailed, interpretative engagement with the data, enabled a rich, in-depth exploration of the lived experiences of the self-selected study participants. By moving through the stages of transcription, initial noting, emergent themes, and cross-case analysis, the researcher was able to uncover both the unique and shared aspects of participants' journeys, offering valuable insights into how they navigated the complexities of their situation. The ultimate level of initial notation delved into the contextual layer, striving to unveil the underlying meaning. This process is inherently hermeneutic, allowing the researcher to draw upon prior theoretical knowledge and personal experiences to interpret the data (Smith et al., 2009; Smith and Osborn, 2007).

It is worth noting that the author of this article held the role of the participants' teacher, which provided a unique vantage point affording them a profound understanding of the context alluded to by the students, compared to an outsider. This insider perspective allowed the author to grasp the students' viewpoints more intimately. However, it was essential to maintain a critical distance to prevent becoming overly immersed and potentially losing sight of the broader context. In the phenomenological literature, this practice is referred to as "bridling," involving the delicate balance of subjectivity and objectivity by interpreting while actively engaging and continually questioning one's own understanding (Dahlberg and Dahlberg, 2020). From this meticulous process, emergent themes began to take shape. These themes were subsequently organized and interconnected. Only after this comprehensive analysis was conducted for each individual case did the author transition to a pattern analysis across all cases, identifying commonalities and differences (Smith et al., 2009).

3 Theoretical underpinnings

Since the 1980s, self-regulated learning (SRL) has gained significant importance in the field of education (Kremer-Hayon and Tillema, 1999). One pivotal reason for this surge in interest is the realization that it is impractical to provide students with all the information they will require in the rapidly evolving future (Kremer-Hayon and Tillema, 1999). Considering ever-advancing technology and the shifting landscape of the job market, students must cultivate the ability to adapt and acquire new skills throughout their lives (Ng et al., 2010). Furthermore, the argument for SRL is reinforced by research demonstrating that students are more likely to develop a

profound understanding of the material when actively engaged in the learning process and empowered to take ownership of their education (Dent and Koenka, 2015; Lawson et al., 2023). This, in turn, enhances information retention and the capacity to apply knowledge in diverse contexts (Hattie et al., 1996).

According to the seminal work of Zimmerman (2002, 2015), SRL comprises three main phases: forethought, performance, and self-reflection. The forethought phase involves setting goals, planning, and activating prior knowledge (Zimmerman, 2002). During this phase, learners determine their objectives, devise strategies to achieve them, and assess their existing knowledge of the subject. The performance phase is when learners actively engage in the task (Zimmerman, 2015). Here, they monitor their progress, employ strategies to facilitate learning, and make necessary adjustments. Finally, the self-reflection phase entails evaluating their performance and assessing progress toward their goals. During this phase, learners reflect on their success or failure in achieving their objectives and identify areas for improvement (Zimmerman, 2002, 2015).

The shift towards prioritizing SRL necessitated a reconsideration of instructional practices. Prior to the 1980s, educational practices were typically expert-driven and top-down (Butler et al., 2004; Kremer-Hayon and Tillema, 1999). Several studies have demonstrated teachers' willingness to embrace this mindset shift and explore ways to foster SRL in their students (Karlen et al., 2020; Kremer-Hayon and Tillema, 1999; Michalsky and Schechter, 2013; Lau, 2013). However, recent research reveals that some educators may still lack adequate knowledge and self-efficacy in this domain (Børte et al., 2023; De Smul et al., 2018; Karlen et al., 2020; Oviatt, 2023). This explains why positive attitudes toward SRL do not always translate into appropriate and effective SRL-promoting educational practices (Tillema and Kremer-Hayon, 2002), including active learning activities as opposed to passive, teacher-centered education (Børte et al., 2023). Overall, supporting SRL appears to be a challenging and intricate endeavor (Macmahon et al., 2022).

While numerous studies have concentrated on the development and encouragement of SRL in younger students, there is a paucity of research on higher education students. Insights into factors facilitating or hindering SRL in higher education are crucial, as these students largely manage their learning independently (Russell et al., 2022; Vosniadou, 2020). Higher education students primarily study outside the classroom, often in classes without mandatory attendance and impersonal lectures (Vosniadou, 2020). Additionally, they face tests and deadlines without the daily homework guidance typically provided in secondary schools (Vosniadou, 2020). This heightened self-reliance and independent learning pose challenges for many students, often resulting in lower performance and premature discontinuation of studies (Fokkens-Bruinsma et al., 2021; Stebleton et al., 2014). Students tend to fare better when they experience self-efficacy (belief in their capacity to achieve goals) and autonomous motivation (motivation stemming from internal sources) (Azila-Gbettor et al., 2021; Hauck et al., 2020).

Drawing from theory and the perspective of educators, strategies and interventions have been proposed to further enhance students' self-regulated learning in higher education (Baldan Babayigit and Guven, 2020; Higgins et al., 2021; Russell et al., 2022; Šteh and Šarić, 2020). However, a meta-analysis has indicated that a significant portion of the positive effects of SRL

interventions on higher education performance can be attributed to “side-effects,” such as increased time spent on tasks or perceived value (Jansen et al., 2019). Actual increases in students’ SRL were found to have only a minimal mediating effect (Jansen et al., 2019). Jansen et al. suggest that this could be because higher education students are already familiar with SRL strategies. Additionally, it is essential to consider that both learning processes and self-regulation involve cognitive and metacognitive processes that can interact and potentially overwhelm a student’s capacity. This depends on experience, student abilities (such as strong or weak working memory), and motivation (Asikainen et al., 2018; Seufert, 2018). This argument holds relevance in higher education, where tasks can be cognitively complex, and regulation primarily falls under the control of students.

A noticeable research gap when it comes to SRL in higher education is the lack of focus on student perspectives. The aim of the current preliminary study is to investigate the perceptions of a small sample of higher education students regarding the challenges they face in self-regulating their learning process. Additionally, the study seeks to identify the factors that contribute to either facilitating or hindering their ability to self-regulate effectively. This initial exploration serves as a foundation for informing the design and implementation of a larger-scale research project aimed at comprehensively understanding the complexities of self-regulated learning among higher education students. This information is critical for cultivating a deeper understanding of SRL in higher education and improving support mechanisms.

4 Results

In the results section of this article, the findings are meticulously organized into five specific sub-themes. As outlined above, these themes emerged from an extensive thematic analysis of the interview transcripts (Braun and Clarke, 2022), illuminating crucial aspects of the research. This systematic approach guarantees a comprehensive and cohesive exploration of the preliminary study’s multifaceted outcomes. By methodically addressing each layer of data, it ensures that both the nuances of individual experiences and broader patterns are carefully captured. As a result, the analysis not only offers depth but also fosters a more holistic understanding of the complex dynamics at play. The sub-themes, presented in the following order, include Motivation, Learning Process, Support, Planning, and Group Work.

4.1 Motivation

The initial theme that emerged during the analysis centered around motivation, with two prominent sub-themes: self-efficacy and autonomous motivation. Remarkably, all students demonstrated a notable degree of self-efficacy. They openly shared insights regarding their challenges and accomplishments in a manner that appeared grounded and free from substantial concerns. For instance, Student A articulated: “I was worried that I would struggle because I do not do

it as my main subject, but I have not really found that yet.” Every student displayed a strong sense of belief in their ability to learn and progress. As an illustration, Student B expressed:

You’re not learning skills; you are just realizing what you can do. It’s like when a baby walks, you are not learning the skill to walk in my opinion, you are just realizing how to use your legs in a way that allows you to move bipedally. And I think it’s the same way, you are just realizing how you can use your mind to do certain things and realizing your capabilities.

Regarding autonomous motivation, the students highlighted their inherent drive to pursue learning and complete their studies, demonstrating a clear long-term perspective. Student A elaborated on this by stating:

I just really enjoy them [the exercises]. I suppose I want a further understanding of humanity and the world, I think. When you come to higher levels of study you do just ... not even just the subjects you are studying, you do just get a higher level of evaluation and understanding of things.

Correspondingly, Student B said: “[my motivation is] being able to improve as a human being by realizing my capabilities of certain kind of strands of life.” Student C had similar accounts (“It’s more than a degree, is it not? I think ... yeah for me I do want to be able to help people”) and further explained how the illness of a family member had triggered interest: “so that [experiencing the impact of disease on a family member] plays quite a big part in my life, and I was quite interested to maybe learn a bit more about different illnesses and how that fits with society.”

In summary, the students not only felt confident in their ability to complete their studies but were also resolutely committed to doing so, driven by their intrinsic motivation.

4.2 Learning process

The students provided valuable insights into their learning processes, emphasizing their employed strategies and diligent monitoring. When delving into the specifics of their learning journey, they highlighted a range of effective strategies, including (re)reading, note-taking, summarization, and conducting additional research. The latter, involving further investigation to deepen comprehension or satisfy their curiosity, was particularly noteworthy. As exemplified by Student E’s statement: “I’ve got the opportunity to further research little bits that I find interesting. Or if I do not understand something I can research it a bit more and put it in my typed notes.”

Students D and E exhibited a heightened awareness of their learning strategies and demonstrated deliberate application. Notably, Student D exemplified this by not only reading for comprehension but also strategically engaging in knowledge reactivation before attending lectures: “... what I quite like to do is read the chapter of the book that corresponds to the session before, just to refresh myself, to make sure I kind of know what’s going on.” This proactive approach to learning underscores their commitment to an effective and holistic learning experience. Furthermore, Student E effectively articulated that handwriting yielded superior results when compared to typing:

“Because I find that I cannot reproduce it and remember it if I do it on my laptop straight away, because we write.” In contrast, Student B displayed a lower level of awareness regarding which learning strategies to employ. Nevertheless, upon self-reflection, this student was able to provide a description of their learning process: “I only really learnt essay writing by accident ... I just kind of thought of my top six reasons why I thought [what I thought], and then I suddenly realized, you know, each of them can be a section.” In this incident, the student gleaned knowledge through firsthand experience rather than relying solely on textbook information.

The students showcased their ability to engage in reflective practices, revealing their commitment to monitoring their progress towards learning objectives. In the case of Student F, it became evident that this student recognized the limitations of a seemingly haphazard learning approach, as it failed to yield efficient progress. This introspection led to a realization that certain extraneous and unhelpful facts were inadvertently retained in memory; “...all the stuff I really should know I kind of forget—which is annoying” (Student F). Further, Student C also exemplified their commitment to monitoring their own progress by openly acknowledging moments of negative self-evaluation, such as: (1) “I did not realize we had to do the log so I have not been noting it down...” and (2) “...I started reading that, and I’ve been reading that slowly to be fair; I’m not a very quick reader.” Contrarywise, Student A highlighted the effectiveness of their pre-lecture preparation efforts: “I feel like I’m quite in the anthropology frame-of-mind, if that makes sense.” Though their experiences varied in content, this collectively underscores the notion that these students possessed the ability to engage in self-monitoring of their progress.

4.3 Support

A third theme that emerged can be aptly labeled as “support,” as it appeared to be the overarching concept that encapsulated the external factors students referenced when discussing elements that either facilitated or impeded their progress. Within this theme, two distinct sub-themes surfaced: parental support and the presence (or absence) of structured educational environments.

Regarding parental support, all students voiced the benefits derived from having parents who themselves had completed their studies in higher education (HE). This was evident not only in terms of fostering a positive expectation that they, too, would successfully navigate their university studies, but also in the subtler ways this support influenced their academic journeys. For instance, Student E said: “...my dad was like... you know it was never a kind of ‘Oh maybe you should think about not going, maybe you go’—it was always ‘I’m going... unless something really bad happens to me, I’m going’. So yeah... Which I suppose is nice, a good position to be in.” This was also expressed in terms of providing help, as Student D said: “...so, they have [my parents] always been there to support me and help me with my studies.” Nonetheless, it is worth noting that parents were not consistently perceived as sources of assistance. To illustrate this point, Student B elaborated:

Dad always wanted to really help me with my history studies, but sometimes I feel like that father [child] relationship; when he tries to teach me things, does not quite work. It’s not always easy to take advice from your parents, I guess.

Regarding the educational support they received, students expressed dissatisfaction with the absence of a clear structure, noting that it differed from their previous educational encounters. For instance, Student F expressed: “...like at school, you have such a fixed timetable... you’d know... But now because it’s [university life] so different, much more like real life.” When certain study guidelines were provided, students adhered to them, such as Student A saying: “Because they [lecturers] said to us at the start of term, ‘If you treat your degree like a 9 to 5, you’ll be okay’. So, that’s kind of what I try to do.” However, the prevailing sentiment was that there was a lack of guidance. “I felt like history kind of throw you in the deep end, and I think they kind of let you flounder a bit, but then you work it out in the end, I think... I hope” (Student A). This theme was closely linked to the subsequent theme of *planning*.

4.4 Planning

The absence of guidance within the educational system meant that students had to take charge of their own study activities. While Student E did mention the arrangement of information, most students primarily discussed how they managed their time and attempted to establish a routine, all while being inconvenienced by fluctuating schedules at the university. Their time management was significantly influenced by factors such as their required location and the distance they lived from campus. For example, Student C said: “...it’ll be about a 20-min walk, so hopefully all my things will stay in this sort of area”; whereas Student A said: “I can just roll out of bed and I’m like ‘Hi’... Yeah, so that’s nice.” The students demonstrated a keen understanding of what strategies are effective for them. This encompassed the utilization of digital tools or a traditional physical diary. Student F, for instance, said: “I leave my evenings free, I’m not a nighttime worker. I’d rather get up early in the morning and get it over.”

They encountered, however, difficulties in accurately estimating the time required for tasks and effectively balancing their schedules with other activities. For instance, Student A expressed: “...so, it’s quite hard to judge how long they’ll [written examinations] take for you, because we have never done one before.” This latter challenge often stemmed from a tendency to procrastinate when presented with opportunities to engage in activities outside of the university. As Student C said: “I sort of just waste time, procrastinate you know, Hoover the floor or something; I do not do anything productive.” Furthermore, the students emphasized the significance of leisure time and social engagements, typically scheduling these activities for evenings and weekends. For instance, Student E expressed: “But at the weekend we will go out, but... I do not know, I think it’s good to have some time off from studying” while Student B said: “And then I’ll probably... might go and play pool with some friends, just hang out with some friends for a bit” (Student B).

4.5 Group work

The final theme that emerged was group work, encompassing subthemes like the joint process, trust, and the individual within the group. With regards to the joint process, it was observed that students appreciated group work for the opportunity to collaboratively organize study activities, which could even extend to practical aspects like

sharing textbooks. All six students reported some positive experiences of learning together. Student A, for instance, said: "...with talking to each other we realized there was quite that difference, and so with that was a topic of discussion that we had not really thought of before." Furthermore, students also noted that they could learn from one another. As this quote illustrates:

...she knew a lot more than us, so then she helps us. So, it's quite good having that group work, 'cos it means that you can... learning from other people is always a lot easier than learning from a book. (Student A).

However, the students also highlighted their lack of prior experience with group work, which posed challenges in terms of how to effectively organize it. Additionally, trust issues surfaced for Students E and F, with Student E admitting a desire to share a digital calendar but feeling hesitant or embarrassed to do so. As expressed, "...but then she sees like weird stuff" (Student E). In contrast, Student F explicitly said: "I do not really trust them [group members] that much, to be fair." Student A, on the other hand, did not experience a lack of trust, explaining: "I think especially at university... everyone's there for a reason, because they enjoy their subject." Indeed, Students E and F even gave examples of how they continued to work independently within the context of what was supposed to be a group effort: "I kind of did that one [assignment] and then gave it to them" (Student E), and "...you do the experiment in a pair, but you write it up individually; you cannot write it up in a pair because of like plagiarism and stuff" (Student F). While students are allowed (even encouraged) to work together in pairs to conduct experiments, they must write up their reports individually to avoid issues related to plagiarism and academic integrity. In essence, collaboration is permitted during the experimental phase—but each student is expected to independently document their findings and analysis to prevent any form of cheating or copying.

5 Discussion

This article presents findings from a preliminary comparative interview study conducted at a university in England (UK), aiming to explore the strategies utilized by students in their self-regulated learning processes. The study seeks to address fundamental inquiries concerning how students organize their learning activities and pinpoint potential barriers encountered in the process. Within the landscape of higher education, where classroom attendance is frequently optional and lectures may lack personalization (Vosniadou, 2020), the significance of self-regulated learning becomes evident. The study uncovers that students often grapple with self-regulation, particularly within what Zimmerman (2002, 2015) terms the "forethought phase." This phase encompasses goal setting, planning, and activation of prior knowledge, with planning emerging as a notable hurdle for students. Challenges arise due to inconsistent timetables and inadequate support in estimating the necessary time for their studies.

In the performance phase, four students consciously employ learning strategies, while all students monitor their study progress. This finding aligns with Jansen et al.'s (2019) assertion that higher education students are well-acquainted with learning strategies.

However, two students appear less aware of which learning strategies to employ. In line with phenomenological principles, it is essential to acknowledge both the presence and absence of findings (Smith et al., 2009). Notably, students mentioned only a limited number of learning strategies and overlooked potentially effective methods like mnemonics and the keyword approach (Atimi et al., 2023; Cummings et al., 2023). This suggests that higher education students may benefit from increased awareness and modeling of learning strategies.

Regarding the self-reflection phase, students exhibited the ability to evaluate their performance, articulating both positive and negative aspects of their learning processes and study activities. They also recognized the potential for learning through group work, highlighting strengths in collaborative learning and knowledge exchange. Nonetheless, barriers emerged, including a lack of experience and trust. These factors sometimes led students to work individually on group assignments, potentially influenced by requirements for individual deliverables. Recent research underscores the importance of trust in group work, along with clear roles, norms, and objectives (Garcia and Privado, 2023). Addressing these issues and fostering social relationships within study groups or modules could enhance joint learning experiences.

Parents emerged as a valuable source of support for students, challenging the predominant focus on individuation among emerging adults in the literature (Nice and Joseph, 2023). While students acknowledged that adults were not always helpful in every aspect, they drew motivation from their parents' positive expectations and occasionally received parental assistance. Universities might explore ways to provide guidance to parents, especially for first-generation students whose parents may lack the experience to serve as role models or adequately prepare their children for the academic journey (Nichols and Islas, 2016).

Lastly, the study revealed that students exhibited self-efficacy and autonomous motivation. Despite never contemplating that studying might not be an option, they attributed their motivation to the fact that their parents had pursued higher education. These students could articulate their autonomous reasons for pursuing studies, dispelling the notion that planning challenges and procrastination were linked to a lack of motivation or self-efficacy.

5.1 Limitations

This preliminary study encountered several limitations that warrant acknowledgment. Initially, the participant pool consisted solely of volunteers, potentially skewing the results towards individuals exhibiting higher levels of motivation or positivity towards education compared to their peers. Additionally, although homogeneity is often desirable in Interpretative Phenomenological Analysis (IPA) studies, this research did not intentionally target White, second-generation students, leading to a sample that can be characterized as WEIRD (Western, educated, industrialized, rich, and democratic) (Ekuni et al., 2020). Future investigations should aim to broaden the demographic scope to assess whether different demographic groups face distinct obstacles.

It is also important to highlight that the university where this study was conducted, though unnamed, is a highly selective institution, among the top-tier in the UK in terms of entry

requirements. As such, the students enrolled, particularly those who participated in this study, are likely to be unrepresentative of the wider population of higher education students in the UK (Stubbs and Murphy, 2020). This introduces a notable limitation to the generalizability of the findings. Students who meet the stringent admissions criteria of such institutions are typically high-achieving and may possess stronger independent learning skills, which could result in a more effective engagement with self-regulated learning strategies (Zimmerman, 2002). In contrast, students from institutions with lower entry thresholds, or those with more diverse academic backgrounds, may approach self-regulated learning differently, facing more challenges or requiring additional support (Ives and Castillo-Montoya, 2020). Consequently, the results must be interpreted with caution when considering their applicability to broader, more diverse student populations across the higher education sector. It is essential to recognize that the academic environment, student demographics, and institutional expectations play significant roles in shaping students' learning behaviors and outcomes.

Furthermore, a notable limitation arises from the small sample size of only six cases in this comparative (preliminary) study. While this approach provided valuable insights into individual experiences, it inherently restricts the generalizability of the findings. Moving forward, larger sample sizes and more diverse studies are necessary to better comprehend the nuances among various student cohorts. For instance, the current study uncovered both shared experiences and discrepancies, particularly concerning the conscious and effective utilization of learning strategies.

6 Conclusion and further implications

In conclusion, this article offers insights into the organizational strategies utilized by students in their learning endeavors and sheds light on the challenges they encounter within higher education. The analysis of this preliminary study has revealed several key themes, including motivation, the learning process, support mechanisms, planning, and group work. These findings hold significant implications for educators and educational institutions.

Primarily, the results suggest that students may benefit from structured guidance in planning their learning activities. Clear directives regarding recommended study hours per week, akin to norms such as the European Credit Transfer System (ECTS), are particularly valued by students. Institutions could enhance support by providing explicit explanations of such norms and designating specific learning spaces, such as libraries or study rooms, with recommended usage times. Furthermore, educators could incorporate activities that actively engage students in specific learning strategies, thereby fostering familiarity and encouraging their application in self-study settings. Additionally, prioritizing the cultivation of social relationships and trust within student groups is essential, and educators may consider providing additional guidance to parents to support these efforts.

While this preliminary study offers valuable insights, its design with a small sample size poses limitations in terms of generalizability and breadth of perspectives represented. Nonetheless, preliminary studies play a crucial role in laying the groundwork for larger-scale investigations by providing initial data

to inform research design and implementation. They offer a snapshot of key themes and areas of interest, guiding researchers in refining methodologies and identifying potential avenues for further exploration. Thus, while preliminary studies may have inherent limitations, their utility in informing subsequent research endeavors cannot be overstated.

6.1 Practical recommendations for educators and researchers

The findings from the study offer valuable insights for educators and researchers in the realm of self-regulated learning, suggesting practical recommendations to foster a more supportive educational environment. Understanding self-regulation within education requires focusing on various dimensions such as motivation, learning processes, support systems, planning, and group work, which emerged as central themes in the study. One key takeaway is the importance of enhancing students' self-efficacy and autonomous motivation. The findings show that students, despite challenges, generally exhibit confidence in their abilities and a strong intrinsic drive to learn. For educators, this suggests the importance of cultivating environments that reinforce students' self-efficacy. Practical ways to do this include providing constructive feedback that helps students recognize their capabilities and encouraging them to reflect on their progress. Additionally, allowing students to explore their learning passions, as seen in those who pursued topics out of personal interest, can sustain autonomous motivation.

A deeper understanding of the learning process is also crucial. While the study shows that some students are adept at employing strategies such as note-taking, summarization, and additional research, others lack awareness of specific learning strategies. Educators could address this gap by explicitly teaching and modeling various learning strategies, such as mnemonics or the keyword method, which have been proven effective but were largely absent in students' approaches. Structured workshops or integrated learning strategy sessions within modules could enhance students' awareness and application of diverse study techniques. Support systems—both familial and institutional—are vital in aiding student success. Many students benefited from the emotional and motivational support provided by parents, especially those with parents who had higher education experience. This highlights the potential for universities to engage more with parents, particularly of first-generation students, by offering guidance on how to support their children academically and emotionally. Moreover, the absence of structured educational environments was noted as a barrier, particularly in transitioning from more rigid school timetables to the flexible nature of university life. Universities might consider offering better orientation on managing unstructured time and making resources, such as time management tools, more accessible.

Planning and time management also emerged as a challenge, with students struggling to estimate how much time tasks would take and finding themselves distracted by non-academic activities. Educators could address this by incorporating time management skills into the curriculum, helping students break down tasks and set realistic timelines. Providing clearer guidelines on the time and effort required for assignments, along

with encouraging the use of planning tools, could greatly benefit students who find themselves procrastinating or overwhelmed. Group work presents an opportunity for collaborative learning, yet challenges such as lack of trust and inexperience in organizing group efforts were common. Educators could foster better group dynamics by setting clear roles, providing structured group guidelines, and addressing trust issues head-on. Building in mechanisms for accountability and offering tools for effective group collaboration can strengthen the joint learning process. Facilitating team-building activities or peer review could also enhance trust and cooperation among students, ultimately making group work a more enriching and less stressful experience.

In conclusion, to foster better self-regulated learning, educators need to focus on empowering students through increased awareness of learning strategies, structured support for planning, and scaffolding group work dynamics. Providing explicit guidance on time management, offering motivational feedback, and involving parents in supporting their children can also help bridge gaps in self-regulation and ensure students can effectively manage their educational journeys. This holistic approach can support students in realizing their capabilities and taking ownership of their learning processes, ultimately leading to improved academic outcomes.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

Ethics approval for this study was duly granted by the local research ethics committee, local legislation, and institutional requirements. The research procedures employed in the study meticulously adhered to the principles outlined in the Declaration of Helsinki and the Code of Ethics of the American Anthropological Association. The patients/participants provided their written informed consent to participate in this study.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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