Cell Phones in the Classroom

Beyond the Pros and Cons

Patrick Mainil

Classroom management in the digital age can be a significant challenge, even more so in the context of the health crisis we face. Distance learning has given students a lot of latitude in using mobile devices (phone, computer, tablet) during class. The return to campus has been destabilizing for many students, some of whom now take for granted that their cell phone is a learning tool, while others have simply become accustomed to using it at all times during class. How to interpret such irrepressible cell phone use in class? What to do when faced with it? This article first proposes a reflection on the topic, taking into consideration both the context of the coronavirus pandemic and the literature on self-regulated learning. It also presents possible avenues of intervention, without seeking to impose one single truth. Rather, this text attempts to suggest contrasting avenues that can inspire a diversity of teachers according to their pedagogical preferences or classroom management styles.

The ubiquitous presence of cell phones in the classroom has long provoked varying reflections and reactions from teachers. In educational settings, different visions coexist: prohibiting these sources of distraction at all costs, educating on the responsible use of these technologies or integrating them into learning activities. While there is no consensus on the benefits and drawbacks of using cell phones in the classroom, there is a great deal of discussion on the issue, especially since these technologies are relatively recent and their uses are often linked to environmental and social contexts.

At the Cégep de l'Abitibi-Témiscamingue, where I teach, several teachers, from all disciplines, noticed that young people, especially those coming from high school, had a different relationship with their cell phones and social networks since the beginning of the pandemic. It was as if they couldn't "get off" their cell phones. This observation led us to question the apparent causes of this change and the solutions to be considered.

The effect of the pandemic

First, it is important to understand the context of the phenomenon under study, which in this case is the problematic use of cell phones in the classroom since the beginning of the pandemic. Thus, it is necessary to understand what has changed; although it has been a time of great upheaval, it is likely that home confinement and distance learning have had the greatest impact. This is at least a plausible hypothesis, considering that several studies around the world draw conclusions that go in this direction.

With distance education, students were given freedoms they were not necessarily prepared to have. From one day to the next, they had to organize their schedule and their learning while taking courses that were often adapted in a hurry. Thus, when students complain in a Quebec-wide survey that they have difficulty organizing themselves, planning their work or managing their time (Gallais & Gaudreault, 2021), they are indicating that they are not able to achieve the level of autonomy required by distance education (Pelikan *et al.*, 2021), for whatever reason. This is probably why small but significant learning delays have been reported across the country (Whitley, Beauchamp, & Brown, 2021), a finding corroborated by the testimonials of many teachers.

Indeed, the level of autonomy required by distance learning is not within the reach of everyone; few students are autonomous in their learning from a young age. When the demands exceed their capacity, students can then "crack" and give in to the temptation to procrastinate (Rakes and Dunn, 2010) by surfing, for example, on social networks. Bad habits begin this way: actions are performed in some context and, with repetition, eventually become automated from conscious actions to reflexes managed by the unconscious (Wood, 2017). From a conscious escape from an unpleasant situation—in this case academic difficulties—the escape gradually becomes an automatic reaction that is laborious to control, even in the classroom.

The difficult return to school

Returning to the physical classroom after a period of confinement can

therefore be difficult, as it involves a return to discipline lost. The temptation to check your cell phone, or to surf social networks, can become too strong, especially when faced with difficulties that are all the more likely because the transition from high school to CEGEP has never been known to be easy. Slight academic delays may not have helped either. Cell phone abuse may therefore be an escape, an avoidance strategy, or simply a way of dealing with boredom. For the purposes of this reflection, the hypothesis is that the student is no longer able to control themself, to behave appropriately in class, and that it is necessary to help them regain a discipline necessary for learning.

One of the challenges is that it takes motivation to stop a bad habit, but that is not always enough. A person may well know why they should stop but not be able to, because success in this endeavour requires staying alert, staying on the lookout to prevent the behaviour from being triggered automatically. Current psychological research suggests that impulse control difficulties can be explained by 1) the limits of working memory, 2) fluctuations in emotional state (Botvinick & Braver, 2015).

When a student wishing to reduce their consumption of social networks responds to a message on their cell phone and then is tempted by their TikTok news feed, it is their working memory that fails. Indeed, the flow of information received could replace the content of their working memory and make them temporarily forget the objectives of the task they were performing, their vigilance being thus misled (Lyngs *et al.*, 2019). A simple reminder could then be enough to

bring them back on track, whether they are in class taking notes during a lecture or completing exercises in a laboratory.

When the student gives in to the temptation because they do not see the point of the task, are too tired to resist, or believe that their efforts will be wasted, then the emotional state of the student is at fault. The length of time before the behaviour change can pay off can also be an important factor, especially if the student believes they will have time to catch up before the exam (Lyngs *et al.*, 2019).

Figure 1

The dual systems model of self-regulation

Professor Lyngs and his team at Oxford University have proposed a dual systems model to describe the internal control system that contrasts conscious thought with habit.

In this model, sensory stimuli are first processed by an attentional filter in order to retain only what might be important, either by innate sensitivity (e.g., sudden noise) or by learned association (e.g., ringing of a cell phone). The information judged sufficiently important by the filter can then reach consciousness by taking a place in the working memory, thus competing with the task that was in progress at the time to form what is commonly called a distraction.

Even if these sensory stimuli do not reach the individual's conscious mind, they may nevertheless trigger automatic responses that are commonly called reflexes.

Social networks, as well as many online games, have been cleverly designed to capture attention and elicit automatic responses from their users.
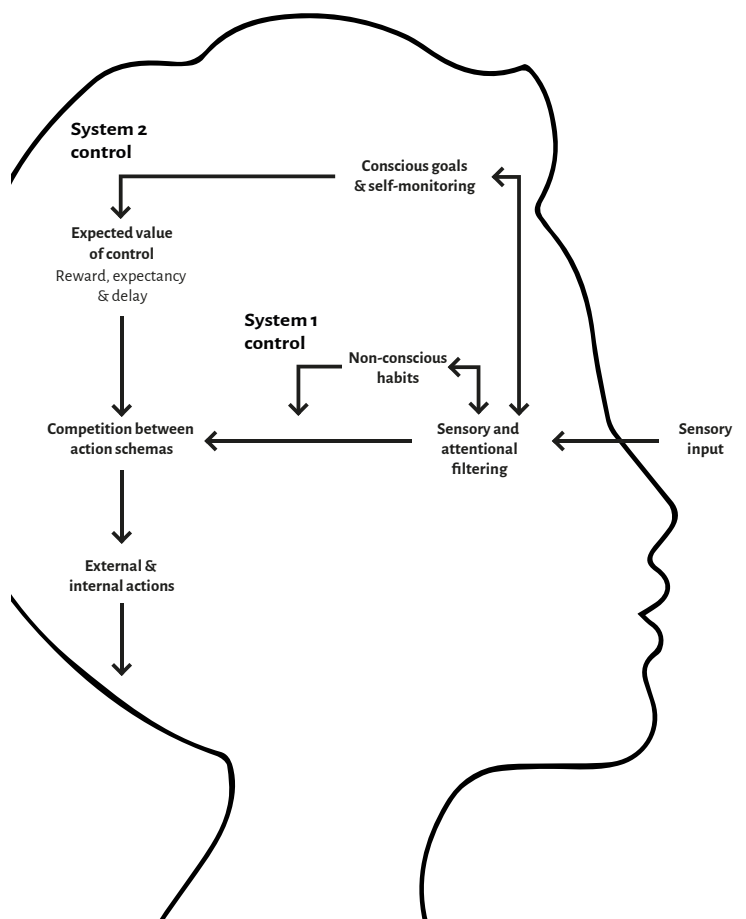
Source: Lyngs *et al.* 2019

In search of solutions

In this case, the problem is that some students spend too much time on their cell phones in class. According to our hypotheses, this problem is due to bad habits acquired during the pandemic, either to avoid boredom or to escape from difficulties. The reality is undoubtedly more complex, but that is the angle we are taking here.

One of two strategies can be used to solve the problem: simply ban cell phones from the classroom or address the problem at its source by giving students the tools to use their devices responsibly.

The authoritarian response

When faced with the problem, the first solution that usually comes to mind is to ban or block access to the item that is causing the distractions, which in itself is not such a bad idea. Research in the United Kingdom has shown that formal bans on cell phones and smartphones improved test scores, with struggling students being the biggest beneficiaries of this measure (Beland & Murphy, 2016). In fact, this ban is not only beneficial for students with a tendency to indulge, but also for their classmates (Tindell & Bohlander, 2012), who will then be less tempted by the idea of imitating them. Additionally, studies have shown that even in "airplane mode," nearby smartphones can be distracting (Mendoza *et al.*, 2018). All of these studies provide very good reasons to ban them.

Implementing such measures, however, requires the adoption of authoritarian classroom management, which is not appropriate for all teachers. For these approaches to work, it is important to make the rules and consequences clear, and to ensure that they are applied fairly so as not to lose credibility. It is important to know that a class is first and foremost a group of individuals who have been brought together in a single place to be taught. As in any group, members will eventually test the limits of their environment, which in this case includes the authority of the teacher (Richard, 1995). If a student sees one of their colleagues using their cell phone, they will feel that they too have the right to do so and may cry foul if the application of the rules seems random. This situation is likely to cause tension and should be avoided.

The concept of self-regulation

The teacher who is not comfortable using the authoritarian approach should not despair; there are other solutions that, while more complex, offer some advantages. The reflective practitioner will seek to analyze the situation and then propose solutions based on a framework appropriate to the context. This frame of reference, inspired by the scientific literature and based on their own experiences and the needs of the situation, will enable them to find appropriate solutions. In our case, this framework could be linked to the concept of self-regulation of learning, which corresponds to the process by which students learn to control their behaviour, thoughts and emotions (Zimmerman, 2002).

Figure 2

The concept of self-regulation
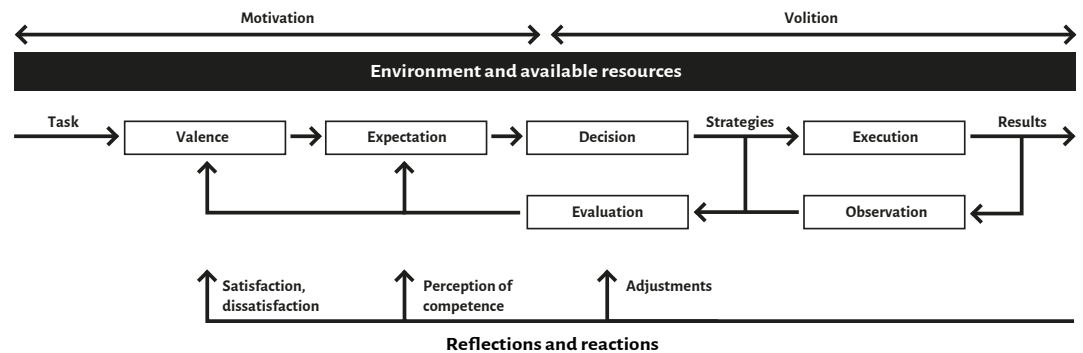
In order to present this framework, it is possible to draw inspiration from Fenouillet's (2009) integrative model of motivation ("Modèle intégratif de la motivation"), which has the advantage of placing motivation at the heart of the concept, at the beginning of any action. Indeed, if the student does not perceive the value of a task (valence) or does not believe in their chances of success (expectation), it is unlikely that they will really invest themself in it. We can see here that motivation depends not only on the task, but also on accumulated previous experiences. This explains why it is necessary, for example, to ensure that prerequisites have been mastered and to validate the level of complexity of the activities in order to avoid any difficulties being transformed into a loss of interest due to dissatisfaction or a loss of confidence in one's skills. It is when motivation is absent, or difficulties are too great, that students may decide to resort to avoidance strategies, such as using their cell phones to distract themselves or as an alibi to protect their ego

in case of failure. These are obviously situations to be avoided.

This model also demonstrates that being motivated is not always enough. Thus, even when the student has made the decision to invest themself in an activity, it is possible that their will weakens or that they are unable to evaluate the right strategies to use, which includes both task-specific strategies and volitional strategies that will allow them to effectively regulate their emotions, their time and their environment in order to achieve their goals. It is indeed during the transition to action that the concept of volition comes into play, that is, the ability to transform one's initial motivation into results, which obviously implies fighting against distractions. Learning to correctly evaluate strategies, in order to retain those that will be effective, takes time and experience. Experience that the student can gain by observing their results and behaviours, and even by adjusting their strategies if they take the time to reflect on them.

The concept of self-regulation also highlights the importance of providing regular feedback to students, whether to help them interpret their results or to guide them in selecting strategies. Emotional support is also needed to prevent students from attributing difficulties, if any, to their own abilities. Not only would this generate dissatisfaction in the students, but it would also take them away from the goal of adjusting their strategies and methods. Even if self-regulation leads to greater autonomy, this does not exclude the teacher from having a role to play.

For example, if students seem unaware of their difficulties, the teacher can give them a nudge by calling them to order when they notice a lapse. By asking them a question about the subject matter or the work in progress, the teacher will help them become aware of the impact of their distraction. These students, now aware of the problem, can then voluntarily use strategies to stay focused.

In the event that students are aware of the problem but do not know how to deal with it effectively, the teacher could help them manage their environment by inviting them to put away their cell phone or even to put it at the front of the class. While this may seem like an authoritarian solution, it should be noted that here the student is free to comply or not with the suggestion and is given the opportunity to develop self-regulation skills.

Finally, when the student minimizes the influence of the cell phone on their difficulties, which they may believe to be due to their abilities, we can rely on vicarious experience to boost their sense of self-efficacy by citing examples of students who have improved, all with the intention of encouraging them to put their cell phone aside. We can also invite them to reflect on the issue, guiding their thinking so that they find solutions on their own.

Conclusion

This pedagogical reflection stems from an approach in which we questioned the apparent causes of the problematic use of cell phones in courses in the context of a health crisis. The dual systems model, associated with the concept of self-regulation of learning, offers a relevant framework for analyzing the problem situation we are concerned with here, since it describes the internal control system opposing conscious thought to (bad) habits—such as cell phone misuse in class. A deeper understanding of the likely causes and underlying theories has given us the opportunity to propose solutions that could draw on both authoritative classroom management and the concept of self-regulation of learning. Both approaches, although different, seem appropriate, demonstrating that there are solutions for every teaching style.

Although not specifically addressed here—the topic deserves an article of its own—a third avenue could also have been considered: that of channeling this student behaviour by integrating the technological tool into teaching methods. While there may be some dangers in inviting students to use their cell phones to conduct research, or even just to take quizzes, it is an excellent strategy for teaching ethical and responsible use of mobile devices in the classroom, while putting mobile technologies at the service of teachers. After all, digital literacy isn't developed with paper and pencils! ▬

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