



Success factor focus and attention in study and in the work context - a call for action at institutes of higher education in a more and more digitalized world

Michael Krebs¹, Christine Kuhn¹ and Michael Sitte¹

¹University of Applied Sciences and Arts Northwestern Switzerland
michael.krebs@fhnw.ch, christine.kuhn@fhnw.ch,
michael.sitte@fhnw.ch

Abstract

Digitization offers new opportunities in the context of students' learning opportunities and strategies, but also risks and challenges. Undisturbed attention is becoming a scarce resource due to multiple opportunities for influence and distraction (e.g., new social media, "attention economy") and is increasingly limiting the learning success of students. "Stolen Focus", low "Attention Span", increased levels of stress and signals of exhaustion and depression in the face of performance and learning demands that tend to remain the same or comparable over the years are signs of an attention crisis and challenge us faculty to actively address this issue in courses. The coming generations (Z etc.) need assistance to regain or improve their self-efficacy in their studies with media literacy, attention, focus and deeper learning.

The authors see this situation as a call for action, aiming to improve students' perception (also meta-awareness) and awareness of the impact of the digitalized and accelerated world on their daily routines, learning and working. The ability to work and learn in a focused way is seen and expected by employers as one of the most important competencies of graduates in a recent study.

The planned project intends to face this challenge by developing a teaching design with different components, consisting of teaching materials (online/offline), a playbook and a "focus for success diary" and is intended to be applied in a regular Bachelor program, where the authors teach the same course in different locations of the university.

Overall, the project should help learners to be better prepared for the demands of the modern world and to be more aware and successful in their learning processes. The social

and psychological consequences of digitalization, acceleration and densification will thus become an integral part of the training and the solutions developed will offer a contribution in terms of social sustainability in the context of our ESG efforts.

1 Initial situation and problem description

In our modern, highly connected world, many people have difficulty concentrating on one thing and maintaining focus (e.g., Zorn et al, 2022; Brassey et al, 2022; Jardin 2017). The average attention span of American students is only about 60 seconds, while office workers often cannot concentrate for more than 3 minutes before becoming distracted (Hari, 2022). Recently published figures by Gloria Mark (Mark, 2023) are even more startling: average attention to a screen at work has dropped from 2.5 minutes (2004) to 47 seconds with a median of 40 seconds. Switching attention causes so-called "switching costs" and significantly reduces productivity and well-being. The culture of constant accessibility and the use of technologies such as email, chat, and social media are fragmenting our time and reducing our ability to concentrate (Newport, 2022). Experiments show that the mere presence of one's smartphone strains cognitive resources, leaving fewer resources available for other tasks and impairing cognitive performance (Ward et al, 2017). The effects of this attentional crisis can be drastic, as shown, for example, by the 10% drop in IQ with long-term engagement in shallow work (Eyal et al, 2021). It is also observed that students today are more challenged to read texts that other students used to read with enthusiasm because the sentences are too complex for them, and it takes them a long time to read a whole page (Goleman, 2013). Studies also show that a reader's mind typically digresses 20 to 40 percent of the time while he/she is following a text. And the more the thoughts digress, the less well the text is understood (Smallwood et al, 2007). The pressure to always be available and productive also leads to high levels of stress and psychological strain, which can lead to depression, as has been shown in numerous studies (e.g., Schuler et al, 2020). The acceleration and compression of our daily lives and work environments, for example through multitasking and constant interruptions from technology, also contribute to distractions and overwhelm, which impacts our cognitive and emotional health (Rosa, 2019; Hufnagl, 2014). Added to this is the experience of crises, be it pandemic, war, climate, and the sometimes selective and distorted information about them via Youtube or other popular social media (e.g., Instagram, TikTok, Snapchat, Twitter, Facebook, etc.), which are driven by algorithms to maximize user presence on their channels. Bad news thereby leads to better user engagement and directed attention. Again, this further increases the potential for distraction, poor concentration, and stress.

In addition to the evidence from the different studies mentioned above, we would like to illustrate the problem below using a concrete but fictitious example in a "typical" course with 4 lessons of face-to-face or online instruction at a university:

Let's take Lara as an example. She studies business administration part-time and takes the course "Organizational Behavior" on Thursday evenings from 17:30 to 21:15. Lara comes to university for the event but was unable to work on the preparation assignment because she is currently very busy in her professional life. Shortly before the start of the event, she downloads the slides from the learning platform and briefly goes through them. 15 minutes after the course starts, she receives a Snapchat message from her best friend, which she absolutely has to answer immediately (she knows that her friend will be "pissed off" otherwise). 10 minutes later, she receives a message from her boss pointing out mistakes in her work and making it clear that she will no longer tolerate this. This information unsettles Lara. She is restless, gets scared and can hardly concentrate on the event. Fortunately, there is now a break in which she can briefly chat with a colleague to coordinate her further behavior - she is annoyed and slowly stressed because she doesn't know exactly how to deal with this conflict - "should I quit?". What was actually the content of the first lesson? Lara now decides to concentrate on the class again and not deal with the work problem until the next day.... In the second lesson, after 10 minutes, an urgent

Whatsapp message arrives from her boyfriend, who, although he wanted to study, has spent the whole afternoon watching Youtube videos on the climate crisis and is now quite panicked. He really wants to see her earlier than planned ...Lea thinks about what to do now and starts a chat with him....

Probably every lecturer and student have their own experiences from courses and knows variations on this fictional example. It serves us here as an illustration of increasingly occurring behavioral patterns in courses, which are intended to illustrate the general statements from the studies cited above by means of an example.

These challenges have been known for some time under other contextual conditions. For example, as early as 2001, Accenture consultants Davenport and Beck wrote in their book "The Attention Economy" that the scarcest resource is not ideas or even talent, but attention (Davenport & Beck, 2001). Although the signs of an "attention crisis" seem to be increasing at the moment, there are still hardly any approaches or training and further education that deal with this topic in a dedicated way and offer possible solutions and tools. It is therefore important to specifically support students in finding ways to focus on the essentials and to develop meaningful learning strategies. It is also important to help them use technology more consciously in order to minimize distractions, work more productively and thereby improve their self-efficacy and well-being. It therefore seems sensible to us to develop a concept that provides students in training with assistance in regaining or improving their self-efficacy in their studies and careers with media competence, attention, focus and deeper learning.

In summary, it can be stated that we are in an "attention crisis" and that in-depth and concentrated work and learning is becoming an increasingly scarce resource. If we succeed in creating solutions, this will be a clear differentiating factor for universities with an impact on society and the economy.

2 The project

The authors of this Practice Report intend to face the above-mentioned situation through a project within their university. The project aims to increase participants' perception (also meta-awareness) and awareness of the impact of the digitalized and accelerated world on their everyday routines, learning and work. This involves distinguishing between self-determined and other-determined actions and recognizing stolen or, in some cases, self-interrupted focus. The project will incorporate theoretical concepts such as self-determination theory, the demand-resource model, the "attention span", and the effects of acceleration and demand pressure on stress experience and focus (Mark et al, 2023). The project aims to provide participants with a better understanding of why they become distracted and how to maintain their focus.

Within the project the authors intend to develop a teaching design with several components consisting of instructional materials (online/offline), a playbook and a so called "focus for success diary". The area of application will initially be in a mandatory module within the two Bachelor programs in Business Administration and International Management, in which the authors give lectures.

The instructional materials will provide an introduction to the topic of focus and attention, providing the basic theories, background, studies, and other information on the topic. The goal is to arouse students' interest and curiosity in the topic, as well as to make the meaning and benefits of increased attention and focus tangible.

The playbook consists of various steps and concrete exercises based on scientific findings, which aim to provide students with tools and strategies to better cope with the accelerated and digitalized world and to promote their mental health and increase their well-being. In addition to mindfulness exercises, this includes exercises to sharpen self-awareness, awareness of internal and external distractors and stressors, and their own use of electronic tools.

The Focus for Success Diary, which can be used digitally or analog as desired, asks students to jot down 3 situations each morning in which they would like to focus today. In the evening, they should

briefly reflect on whether and how they succeeded and what they might want to do differently the next day.

The intended research philosophy and methodology is action research and learning in the tradition of Kurt Lewin. Action research as it is planned in this project involves a cyclical process of planning, acting, observing, and reflecting in order to improve a situation or address the problem of focus and attention within the particular context of a university lecture setting. In general action research is used in social sciences, education, and organizational development to bring about practical change in real-world settings. By involving lectures and students in the research process and focusing on collaboration and participation, action research can promote ownership and sustainability of change.

The following procedure is currently planned as an example. At the beginning of the semester, the lecturer provides an introduction to the topic of focus and attention using the teaching materials (possibly supported by asynchronous digital teaching aids) and shows the students the further process and procedure. Currently, we assume 2 to 3 lessons in the mandatory module Human Resources Management and Organizational Behavior (HRM & OB) for Bachelor students in Business Administration and International Management part-time in the 2nd or 3rd semester in German and English at different campuses of the university with the module leaders. The thematic proximity to HRM & OB is helpful as well as the competence of the lecturers to be able to map a quantity structure relevant for the study with different students. After the introduction, students form small groups of 5-7 participants based on various criteria such as goals, preferences, collaboration styles, emotional affiliation, etc. The students meet in these self-selected small groups regularly during the semester and follow the steps and exercises in the playbook. The self-selected groups are designed to promote group learning, which can help students support each other and improve their skills in this area. Instructors could be available to mentor or coach in this process and include selective exercises in each course during the semester. In addition, students keep a Focus for Success Diary to monitor and reflect on their behavior and document their progress. This will help them become more aware of external and internal distractions and triggers that have an impact on their own learning behavior and ability to concentrate. In the middle and at the end of the semester, there is another exchange session with the lecturer in which students can ask questions and share experiences. In these exchange sessions, there is also further theory input and tips from the lecturing person to help students improve their concentration and focus; best practices and successes so far are shared in the group.

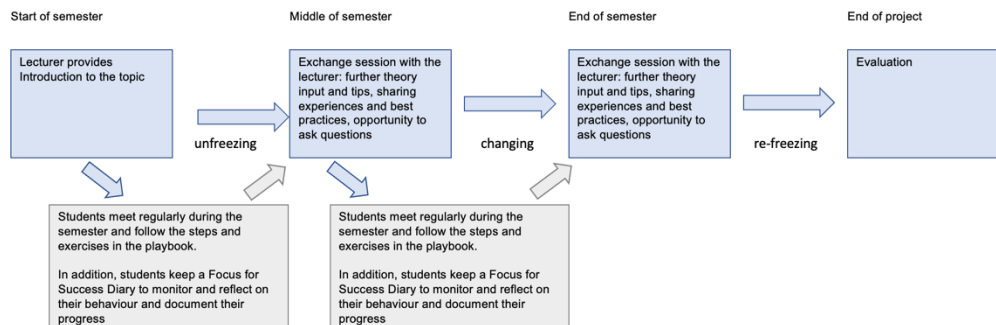


Figure 1: Flow of the process

Subsequently, interviews and an online survey will be conducted, taking into account both faculty and student perspectives; a qualitative evaluation will also be conducted by the lecturers.

As a result and product of the project, the validated components of teaching material, playbook and Focus for Success diary are available in addition to the tested teaching design (different

teachers/students/sites). Expansion into a stand-alone context module in education is conceivable, as is the design of a specialized course or polyvalent module in continuing education.

As expected results and effects of the project, an increased ability to concentrate, improved self-perception and control as well as a higher level of productivity and performance as well as satisfaction can be mentioned. This will be discussed and deepened in the final event.

3 State of the Art and Potential for Innovation

The project is innovative in several respects. On the one hand, it addresses a topic that is very topical in society and the economy and has to date been integrated little systematically and explicitly into teaching at universities: how do we want to, and should we deal with the attention and effects of digitization, acceleration and compression on our everyday lives, our learning and our work? Similarly, this topic has not yet been comprehensively and specifically addressed in the previous teaching fund projects of the University of Applied Sciences and Arts Northwestern Switzerland (see <https://fhnw365.sharepoint.com/sites/inside-FHNW/SitePages/Gefoerderte-Projekte-Gesamtuebersicht.aspx?web=1>) There, students were taught the digital tools, but the mindful and conscious use of them was not addressed much.

On the other hand, the project combines a playbook and possibly digital tools with a social practice that does not yet exist in this form to help students learn in a focused way and concentrate better on their goals. So far, this has not been explicitly included in the competency model of the University of Applied Sciences and Arts Northwestern Switzerland. In our view, this can become an important differentiator for students for their own future and their competitiveness in the job market.

Furthermore, continuous reflection and routine change, for example with the help of an analog or digital “Focus for Success Diary”, which may be transparent to others, is an innovative method to promote students’ awareness and sensitization. This should help them better understand the context in which they live, work, and learn. By combining theory and practice, students are offered a new approach that allows them to learn in a more self-directed and focused way. The lecturers switch to the role of a coach if necessary.

Overall, the project “Success Factor Focus and Attention in Study and Work” is therefore innovative in terms of the state of the art in university teaching and also in the context of the university itself, as it offers a new approach that addresses current social developments and helps students to learn and work better and achieve their goals.

4 Benefits for students or participants of further education courses

The project contributes to student learning in many ways. It provides guidance in a potentially overwhelming time of flexibilization, modularization, and individualization. By addressing the issue of focus and concentration in the context of digitalization and acceleration, the project teaches learners how to become self-directed and empowered in their learning and professional environments. It shows how focus and concentration in terms of Deep Work can contribute to successful learning and how students can reduce Shallow Work, i.e., superficial and distracting activities (Eyal et al, 2021). Benefits can be measured in the dimensions of productivity and satisfaction, conducting online surveys and qualitative evaluations at the beginning and the end of the project as well as interviews.

Another important aspect of the project is to enhance learners’ sense of meaning. By learning to increase their concentration and reduce distracting factors, they can achieve a deeper understanding and

a more intense experience in learning. As a result, they can experience learning as meaningful and fulfilling, and as part-time students, they can access new approaches and opportunities.

The ability to work in a focused manner is also seen and expected by employers as one of the most important skills for graduates in a recent study.

Overall, the project “Success Factor Focus and Attention in Study and Work” can contribute to learners being better prepared for the demands of the modern world (New Work) and being able to shape their learning processes more consciously and successfully. The social and psychological consequences of digitalization, acceleration and compression thus become an integral part of education and the solutions developed offer a contribution in terms of social sustainability in the context of our ESG efforts.

The focus of the implementation is thus rather on the application and use of already existing technologies and tools (e.g., apps to track attention and/or distraction, wellbeing, feelings etc.) during the whole program in order to optimize them for the project idea. In particular, it will be examined to what extent existing IT applications can be used for the implementation of the project goals without compromising data protection or the privacy of the participants of the project (i.e., students). The integration of existing IT applications and tools should thus help to achieve the project objectives in an effective and sustainable manner without requiring extensive IT development resources.

5 Effectiveness and Sustainability

The concept developed, the teaching materials and the playbook are to be used sustainably even after the project has been completed. Therefore, it is planned to maintain the offer continuously and to integrate it as a fixed component in the training. In addition, it will be examined to what extent the product can also be transferred and further developed in other offers (e. g. as a polyvalent module and / or context module during the block week and in further education).

With the project, the university supports and promotes social sustainability, one of the three ESG pillars, by contributing to mental health and resilience. In addition, the project enables students to better deal with the challenges of New Work (e.g., highly connected world, flexible and hybrid work arrangements, constant accessibility and use of technology and social media, multitasking, fragmentation of time, etc.). We also see this as a contribution to social sustainability and a chance to face the complex problems of our time with in-depth and concentrated discussions – this will not succeed with even more “shallow work”.

6 Discussion at the conference

At the conference, we would like to discuss the experiences of other lecturers on the project topic and, if applicable, learn about possible solutions or comparable projects. At the moment, the project is not yet funded by the university, but has been applied for. Before we start the project, we would like to use the conference to challenge our research questions and our research design in education with practical exercises and to take constructive suggestions for further work. We would be particularly interested in discussing the following topics and questions:

Current state at your university:

- Perception, experience, and additional evidence (validation of our findings, peer group feedback)
 - What are your experiences so far?

- What is the reaction of your students (e.g., are they interested in this topic? Are they aware of the challenge and impact? Are they willing to address this topic? etc.)
- What is the reaction of lecturers?
- Are there any best practices you can share?
- What is working well / what is not working well?
- Do you offer these programs to volunteers or are they a compulsory part of your program?
- Do you use IT tools and / or apps? If so, which ones?
- How do you evaluate results and success?

Planned activities:

- What is your university planning regarding this topic?
- If you are planning to work on this topic: how do you plan to address the topic?

Research design: Experience with action research, action learning with students at the university

- What is your research design recommendation?
- What are your suggestions or key learnings for this type of action research applied in a lecture setting at the university?

References

- Brassey, J., De Smet A. & Kruyt M. (2022). *Deliberate calm: how to learn and lead in a volatile world. First edition. New York, NY: HarperBusiness, an imprint of HarperCollins Publishers*
- Brinck, Ch. (2022): Schüler auf Handy-Entzug, *NZZ 28.11.2022* (p 31)
- Davenport, T.H. and Beck J.C. (2001). *The Attention Economy: Understanding the New Currency of Business. Boston, Mass: Harvard Business School Press.*
- Nir, E. & Li-Eyal, J. (2021). Die Kunst, sich nicht ablenken zu lassen: indistractable - werden Sie unablenkbar. Übersetzt von Britta Fietzke. 2. Auflage. *München: Redline Verlag.*
- Goleman, D. (2014). *Focus: The Hidden Driver of Excellence. London New Delhi New York Sydney: Bloomsbury*
- Hari, J. (2022). *Abgelenkt: wie uns die Konzentration abhanden kam und wie wir sie zurückgewinnen. München: riva.*
- Hufnagl, B. (2014). *Besser fix als fertig: hirngerecht arbeiten in der Welt des Multitasking. Wien Graz Klagenfurt: Molden,*
- Jardine, A. (2017): Geistige Abwesenheit ist die Regel im Arbeitsalltag. Achtsamkeit soll das ändern, *NZZ 29.07.2017*
- Mark, G. (2023): *Attention Span: A Groundbreaking Way to Restore Balance, Happiness and Productivity. Hanover Square Press.*
- Newport, C. (2022). *Konzentriert arbeiten: Regeln für eine Welt voller Ablenkungen. Übersetzt von Jordan T. A. Wegberg. 6. Auflage. München: Redline Verlag*
- Rosa, H. (2019). *Resonanz: eine Soziologie der Weltbeziehung. 1. Auflage. Berlin: Suhrkamp.*
- Schuler, D., Tuch, A. & Peter, C. (2020). *Psychische Gesundheit in der Schweiz. Monitoring 2020. In Obsan Bericht 15/2020.*
- Smallwood, J., Fishman D.J. & Schooler J.W. (2007): "Counting the Cost of an Absent Mind: Mind Wandering as an Underrecognized Influence on Educational Performance. In *Psychonomic Bulletin & Review 14, no 12, (pp 230 – 236)*

Ward, A.F., Duke, K., Gneezy, A. & Bos, M.W. (2017): Brain Drain: The Mere Presence of One's Own Smartphone Reduces Available Cognitive Capacity. In *Journal of the Association for Consumer Research*, volume 2, number 2. Published online April 3, 2017. <http://dx.doi.org/10.1086/691462>

Zorn, J. & Leigh, M. (2022). Golden: the power of silence in a world of noise. *New York, NY: Harper Wave, An Imprint of HarperCollins Publishers*