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The PERMA Digital Well-being Framework

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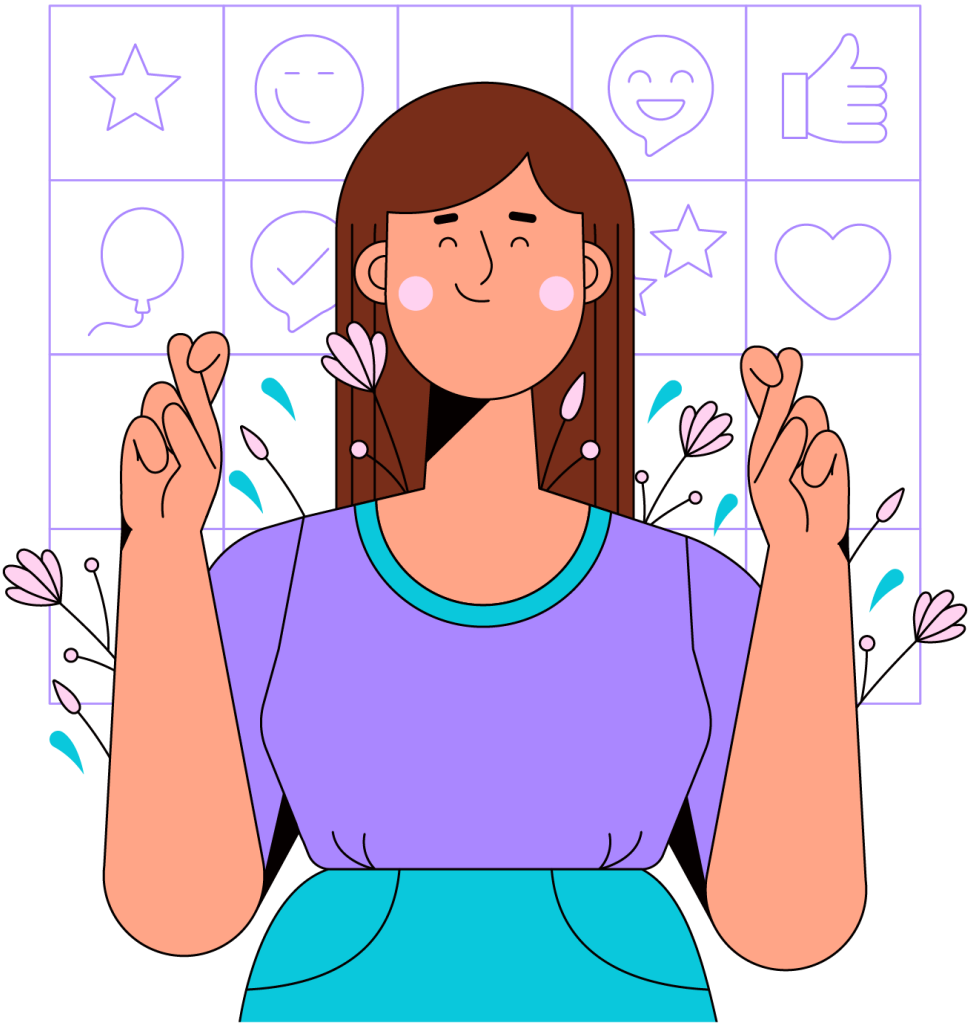

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1 Introduction

As teachers, parents, or observant members of society, it is often noticed that people, particularly youth and adolescents, are much more exposed to screens and are continuously urged to check their phones. Today, every individual maintains an offline presence while simultaneously navigating multiple online identities, each shaped by distinct platforms, purposes, and audiences. Questions concerned with well-being are frequently raised regarding the effects of digital tools, social media, and prolonged screen time. Some tools are widely recognised: the fatigue that follows back-to-back online meetings, the mental fog produced by doomscrolling, and the disconnection experienced after extended digital engagement. Yet we often miss reflecting on our well-being and how it has multiple connections to the use of digital tools, which can have both positive and negative effects. Despite growing concerns, there remains limited research on the impact of excessive screen time, the cognitive strain of short-form video content, and the effects of constant multimodal stimulation. In simple terms, the understanding of the relationship between well-being and digital tool use remains insufficient. **The PERMA Digital Well-being Framework** aims to provide the necessary tools and knowledge to explain how and why the digital well-being of adolescents should be supported in schools and in homes.

The PERMA Digital Well-being Framework is urgently needed as schools across Europe are facing a dual challenge: increasing digitalisation of education and declining well-being of both students and teachers. Evidence from the WHO, OECD and the European Commission shows that digital environments are linked to mental health issues with young people, especially in vulnerable groups, while teacher shortages are worsening and technology has not been able to reduce teachers' workloads (OECD, 2024; World Health Organisation, 2025; Tuomi et al., 2023). This framework focuses on the purposeful integration of digital technologies to create positive learning experiences and the development of teachers' and students' competencies for digital well-being. It also includes practical and accessible guidance for teachers and parents, helping them recognise both the signs of digital well-being and its absence, as well as strategies for addressing these challenges. It aims to deepen our understanding of digital well-being and offer practical guidance, particularly for students aged 10–14, but also for teachers, families, and policymakers, so that we can create healthier, more intentional relationships with technology.

As part of the PERMA Digital KA3 Policy Experimentation project, funded by the European Commission, this framework document, along with its Comprehensive Research Report, Protocol and PERMA Digital Research Index, make up the theoretical foundations for the whole project. All of these serve as a template and support document for all partners across Europe to ensure a consistent and comprehensive approach to collecting, analysing, and reporting data under tasks related to comparative research and framework development. In the PERMA Digital project, the research considers what a balanced digital and digital well-being life truly means. Previously mapped curricula and policy situations of digital well-being which are reported in D2.1. PERMA Digital Comprehensive Research Report. This deliverable has been based on the previous recommendations outlined in D2.1.

The European Union (2022) defines well-being in digital education as a "state of physical, cognitive, social, and emotional contentment that enables individuals to engage positively in all digital learning environments". This includes the use of digital education and training tools and methods, which help individuals maximise their potential and self-realization, act safely online, and feel empowered in digital spaces (Council of the European Union, 2022, p. 5). The concept of positive

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computing arises from the field of positive psychology, a scientific approach to understanding human thoughts, feelings, and behaviour, with an emphasis on strengths rather than weaknesses—on building the good in life rather than merely repairing the bad (Peterson, 2008). Positive education refers to "education for both traditional skills and for happiness" (Seligman et al., 2009). Digital well-being has, at times, been discussed in relation to technostress. Salo et al. (2022) note that while technology can offer pleasurable experiences, it can also lead to harmful effects. These pleasurable aspects can make it difficult for users to reduce or stop their use of technology, even when it becomes detrimental. In brief:

> Well-being: A holistic state of physical, mental, and emotional balance.
> Digital well-being: The state of maintaining a healthy relationship with digital technologies.

The PERMA Digital Well-being Framework addresses digital well-being through a whole-school approach. Its main target group is teachers of upper primary and lower secondary students (ages 10–14). In addition, it places emphasis on supporting families and the wider school environment. The Framework will be based on the results of the previous research in the field and will include the proposed PERMA-Digital model merging DigComp 2.2, LifeComp and PERMA in the context of digital education under a whole-school approach. A 3-tier approach to prevention in school (universal, targeted and individual support) will be presented. The framework will cover the following aspects for the promotion of well-being in digital education:

- School vision and values
- Structural and curriculum aspects for well-being in digital education
- Digital Pedagogy - PERMA and key competencies (DigComp, LifeComp)
- Teachers' personal practice
- Family support

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2 Theoretical Foundations

This chapter provides a brief summary of the three core frameworks used in the PERMA digital project and the building of the PERMA Digital Framework, including the DigComp, LifeComp and PERMA.

2.1 DigComp

The **Digital Competence Framework for Citizens (DigComp)** is an EU-wide reference model developed by the European Commission's Joint Research Centre (JRC) to define and standardize digital competence. Digital competence is defined as the *"confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society"* (European Commission: Directorate-General for Education, Youth, Sport and Culture 2019). The framework has evolved through several versions to reflect technological and societal changes. The first version aimed to establish a conceptual framework for digital competence. It defined five competence areas and 21 competences, organized across three proficiency levels: Foundation, Intermediate, and Advanced. The focus was on conceptual clarity and alignment with EU lifelong learning policies (Collado-Sánchez et al., 2022). DigComp 2.1 update expanded the proficiency levels from three to eight, aligning them with Bloom's Taxonomy (Carretero Gomez et al., 2017). The most recent version 2.2 added over 250 new examples of knowledge, skills, and attitudes. It emphasized emerging topics such as artificial intelligence (AI), Internet of Things (IoT), misinformation, digital well-being, and accessibility (Vuorikari et al, 2022). Further reading on DigComp.

Table 1. DigComp competence areas and related skills

Information and Data Literacy	Searching, evaluating, and managing digital information.	1.1 Browsing, searching and filtering data, information and digital content 1.2 Evaluating data, information and digital content 1.3 Managing data, information and digital content
Communication and Collaboration	Digital interaction, sharing, and online citizenship.	2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging in citizenship through digital technologies 2.4 Collaborating through digital technologies 2.5 Netiquette 2.6 Managing digital identity
Digital Content Creation	Developing and integrating digital content.	3.1 Developing digital content 3.2 Integrating and re-elaborating digital content 3.3 Copyright and licences 3.4 Programming

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Safety	Online security, digital well-being, and privacy protection.	4.1 Protecting devices 4.2 Protecting personal data and privacy 4.3 Protecting health and well-being 4.4 Protecting the environment
Problem-Solving	Identifying digital needs, troubleshooting issues, and innovative use of technology.	5.1 Solving technical problems 5.2 Identifying needs and technological responses 5.3 Creatively using digital technologies 5.4 Identifying digital competence gaps

2.2 LifeComp

LifeComp is the **European Framework for Personal, Social, and Learning to Learn Key Competence**, which is a developed shared understanding and common language for these competences, which apply to all spheres of life and can be acquired through various forms of education (Sala et al., 2020). LifeComp is a response to the 21st-century citizen skill needs, as societal transitions and technological developments significantly impact work, personal life, and society (Sala et al., 2020). Its connection to digital well-being is evident as citizens navigate a world increasingly shaped by digital technologies. It emphasises socio-emotional learning, adaptability, and well-being as essential for personal and professional growth (Sala et al., 2020).

The LifeComp Tree of competences describes **nine competences**, organised in **three areas**: The "personal" area (P1, P2, P3), the "social" area (S1, S2, S3) and the "learning to learn" area (L1, L2, L3). It emphasises socio-emotional learning, adaptability, and well-being as essential for personal and professional growth.

Table 2. LifeComp Tree of competences describes nine competences, organised in three areas

Area	Code	Competence	Description
Personal	**P1**	**Self-regulation**	Managing emotions, thoughts, and behaviors in different situations
	P2	**Flexibility**	Adapting to change and managing uncertainty
	P3	**Well-being**	Promoting physical, mental, and emotional health
Social	**S1**	**Empathy**	Understanding and sharing the feelings of others
	S2	**Communication**	Expressing oneself clearly and listening actively
	S3	**Collaboration**	Working effectively with others toward shared goals

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Learning to Learn	L1	**Growth mindset**	Believing in the ability to develop through effort and learning
	L2	**Critical thinking**	Analyzing information

Flexibility, under the Personal domain, involves adapting to new digital tools and approaches and managing personal data in "datafied" societies, while being aware of privacy threats (Sala et al., 2020). Well-being in the personal domain, particularly mental health, is impacted by digital interactions and the challenges of the digital age, such as coping with uncertainty heightened by misinformation, which highlights the need to understand potential risks and use reliable information for health and social protection (Sala et al., 2020). Communication, under the Social domain, in the digital age, involves understanding new forms of interaction through computer-mediated communication, being aware of the lack of non-verbal cues, and managing associated risks like cyberbullying. While cyberbullying presents a clear and direct threat, sexting may also lead to risks depending on the context in which it occurs. These threats alert for promoting safe, responsible, and ethical use of digital tools, in line with the Digital Competence Framework for Citizens (DigComp), which is complemented by LifeComp. Collaboration, also under the Social domain, leverages digital technologies for online teamwork and co-creation, linking to DigComp's focus on using digital tools for collaborative processes. Critical Thinking, under the Learning domain, is vital for assessing the vast amounts of information and arguments encountered digitally, including discerning reliable information from misinformation. Therefore, the LifeComp competences are crucial alongside digital competences to manage the complexities and challenges presented by the digital era and contribute to individual and collective well-being (Sala et al., 2020). Further reading on LifeComp.

2.3 PERMA Model for Well-Being

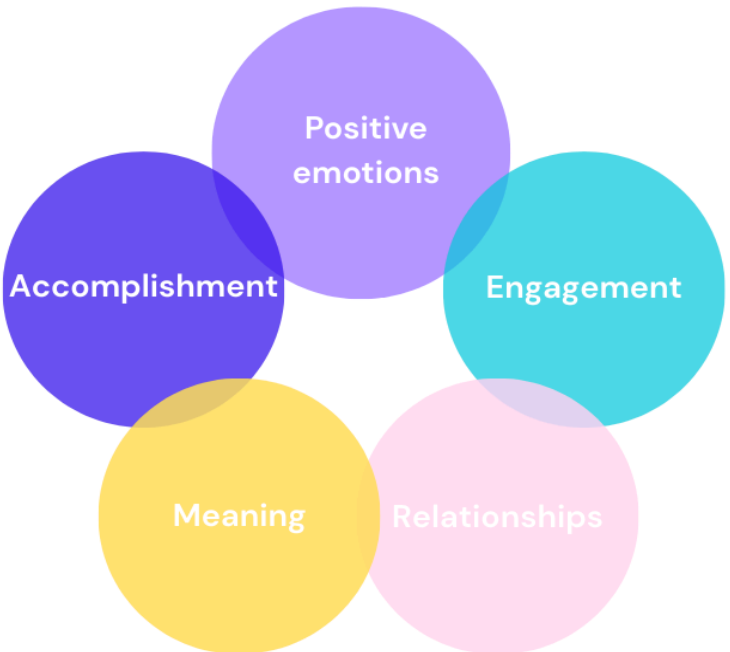

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Figure 1. PERMA model of well-being (Seligman 2011)

PERMA model, proposed by Seligman (2018), hypothesises that five elements are the building blocks or constituents of well-being: positive emotions, engagement, relationships, meaning, and accomplishment. The PERMA model offers a multifaceted and holistic way of measuring well-being (Forgeard & et al., 2011). Focusing on the elements of well-being enables concrete interventions and serves as a framework to build on with other models (Seligman 2018). PERMA assumes that well-being consists of distinct, teachable elements that individuals universally pursue in living a good life.

Table 3. Perma model elements of well-being

P = Positive emotions	Emotions are an important part of our well-being. Emotions can range from very negative to very positive, and range from high arousal (e.g., excitement, explosive) to low arousal (e.g., calm, relaxed, sad). For Positive emotion, the PERMA-Profiler measures general tendencies toward feeling contentment and joy.
E = Engagement	Engagement refers to being absorbed, interested, and involved in an activity or the world itself. Very high levels of engagement are known as a state called “flow”, in which you are so completely absorbed in an activity that you lose all sense of time.
R = Relationships	Relationships refer to feeling loved, supported, and valued by others. Having positive relationships with others is an important part of life, feeling good and going well
M = Meaning	Meaning refers to having a sense of purpose in life, a direction where life is going, feeling that life is valuable and worth living, or connecting to something greater than ourselves, such as religious faith, a charity or a personally meaningful goal. Meaning provides a sense that life matters.
A = Accomplishment	Accomplishment can be objective, marked by honors and awards received, but feelings of mastery and achievement are also important. The Profiler measures subjective feelings of accomplishment and staying on top of daily responsibilities. It involves working toward and reaching goals, and feeling able to complete tasks and daily responsibilities.

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3 Framework Methodology

3.1 Data Collection

The project began with a comprehensive curriculum and policy mapping exercise conducted across four participating countries: Cyprus, Finland, Greece, and Ireland. This process involved a detailed review of national curricula, educational policy documents, and strategic frameworks to understand how each country integrates key themes such as digital competence, innovation in teaching, and 21st-century skills. The aim was to assess the alignment between national educational goals and classroom practices, identify gaps or inconsistencies in policy implementation, and compare cross-national approaches to curriculum design. This analysis provided a foundational understanding of the broader educational context in which teachers and technology providers operate and informed the development of evidence-based recommendations for policy enhancement.

To complement the policy analysis, teacher focus groups were conducted in each of the four countries to gather qualitative insights into educators' experiences, challenges, and perspectives. In Finland, eleven teachers participated, while six teachers were involved in each of the focus groups in Greece, Ireland and Cyprus. These sessions explored how teachers interpret and implement curriculum and policy, their experiences with integrating educational technologies in the classroom, and their professional development needs. The discussions also revealed country-specific challenges and opportunities, offering a nuanced view of how educational policies are enacted at the classroom level.

In addition to engaging with educators, a focus group was held with representatives from educational technology providers. This session aimed to capture the perspectives of those developing and supplying digital tools used in schools. Discussions centered on the alignment of technology solutions with curriculum and policy requirements, challenges in adoption and implementation, and opportunities for collaboration between providers, educators, and policymakers. The insights gained from this group contributed to a more holistic understanding of the educational ecosystem and the role of technology in supporting teaching and learning.

3.2 Framework Development

The PERMA Digital Well-being Framework was developed through a multifaceted methodology, integrating academic rigor with practical insights. The initial phase involved a literature review, systematically examining existing research on digital well-being, positive psychology (particularly the PERMA model), adolescent development, and the impact of technology on mental health. This provided a foundational understanding of key concepts, theoretical models, and evidence-based interventions that we collected in a concise format to help teachers and parents (in and out of school) in supporting the digital well-being of adolescents.

National Curriculum and Policy Mapping was conducted in tasks T2.2-2.3 to align the framework with educational standards, safeguarding policies, and digital literacy objectives within the relevant national context, reported in D2.1. This ensured the framework's relevance, feasibility, and potential for integration into existing educational structures. To bridge the gap between theory and practice, teacher and tech provider focus groups were held (T2.4). These sessions gathered qualitative data on the challenges and opportunities in promoting digital well-being in schools,

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incorporating perspectives from those directly involved in education and technology provision. Finally, an internal focus group and Miro activity (Appendix 1) facilitated collaborative ideation and refinement within the development team and initial framework domains were determined. The definition of the domains was built on the PERMA, DigComp and Lifecomp frameworks' definitions. It was further developed by looking back to the most relevant activities, challenges and needs from the mapping study and the focus groups.

A comprehensive report was developed to synthesize the findings from the curriculum and policy mapping, teacher and technology provider focus groups, and other data sources. To deepen the analysis and connect the educational insights to well-being outcomes, the findings were systematically mapped to the PERMA framework, which includes five core domains: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. This mapping process served two primary purposes. First, it aimed to identify key activities, practices, and policies that align with each of the PERMA domains. For example, teacher practices that foster student engagement through interactive technologies were linked to the Engagement domain, while collaborative learning strategies were associated with the Relationships domain. This helped highlight how current educational approaches contribute to student and teacher well-being.

Second, the mapping was used to identify gaps or underrepresented domains within the existing educational frameworks and practices. By analysing which PERMA elements were less frequently addressed, such as Meaning or Positive Emotion, it became possible to pinpoint areas where additional support, training, or policy development might be needed. These insights informed the development of the PERMA Digital framework, which seeks to integrate well-being principles into digital education strategies in a balanced and holistic way.

3.3 Structure of the Framework

The PERMA model—comprising Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment—represents a set of *internal factors* that can be actively nurtured and developed through education and parenting. In contrast, *external factors* —curriculum, family context, policy decisions, infrastructure, and culture— are highly relevant to the development of digital well-being. However, they are less directly influenced by the PERMA Digital Well-being Framework, teachers, schools, or families. Each section of this report provides a visualization of the PERMA domain alongside its related life and digital competences. This is complemented by a table outlining the key competences and suggested activities to foster their development, as well as a practical toolkit offering guidance on how to recognise signs of diminished digital well-being and strategies to address these challenges both in schools and at home.

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4 The PERMA Digital Well-Being Framework

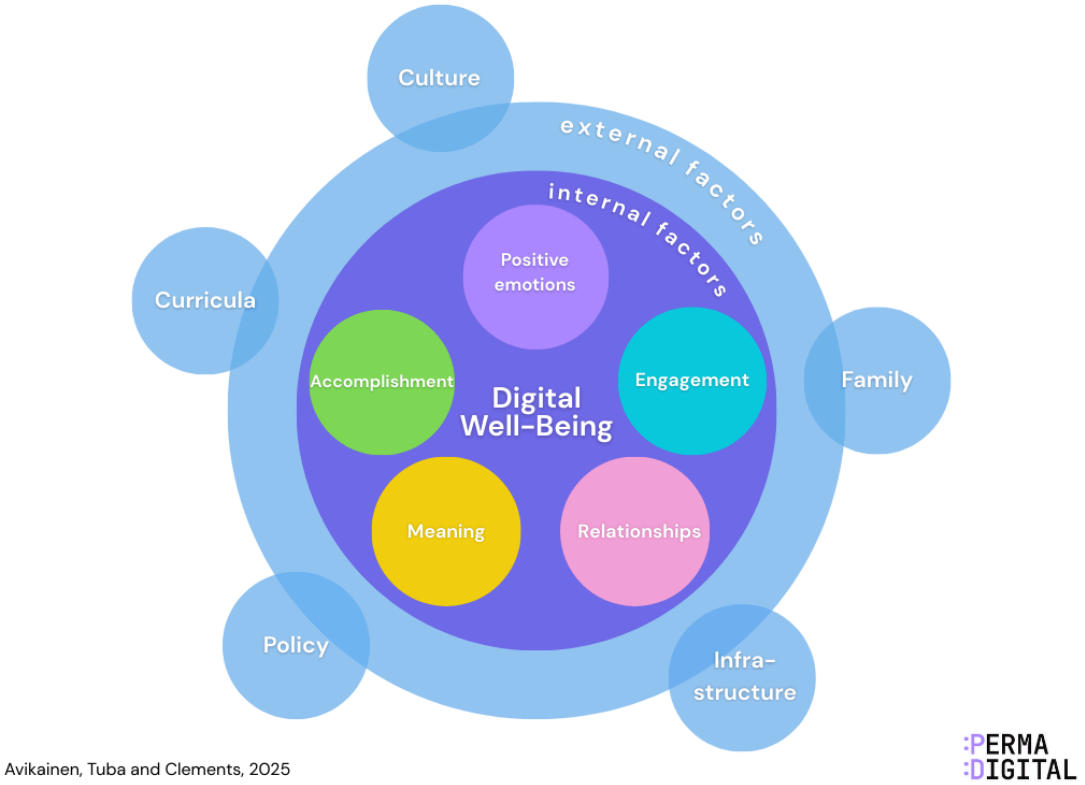

Figure 2. The PERMA Digital Well-being Framework

Figure 2 illustrates how the PERMA elements in the inner cycle represent the internal factors of digital well-being, concentrating on the individual level. Surrounding these are external factors that shape the choices and resources available to individuals in supporting their digital well-being. The PERMA Digital Well-being Framework places greater emphasis on the internal factors, as these can be effectively addressed through a whole-school approach. At the same time, the framework also provides recommendations for strengthening digital well-being in relation to external factors, though these are less easily and less rapidly influenced by the competence development of teachers, educators, parents, and students.

Table 4. Mapping DigComp and LifeComp to the PERMA model

PERMA Domains	DigComp Dimensions	LifeComp Areas
Positive Emotions	1. Information and data literacy 3. Digital content creation 4. Safety (Well-being)	P1 Self-regulation P3 Well-being
Engagement	2. Communication and collaboration 3. Digital content creation	P1 Self-regulation P3 Well-being

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Relationships	2. Communication and collaboration	S1 Empathy S2 Communication S3 Collaboration P3 Well-being
Meaning	2. Communication and collaboration (Digital identity)	P3 Well-being
Accomplishment	5. Problem solving	P2 Flexibility P3 Well-being L1 Growth mindset L2 Critical thinking L3 Managing learning

Table 4 describes the PERMA Digital Framework areas. Bringing the PERMA components together with DigComp and LifeComp areas, as well as the practical ways to use them in practice for teachers, school leaders and families. In the following sections, each domain is further elaborated and expanded with additional competences that highlight its connection to digital well-being.

4.1 Positive emotions

This domain focuses on cultivating joy, satisfaction, and emotional regulation through digital experiences. By using technology creatively and reflectively, learners and educators can foster a sense of well-being that supports motivation and emotional resilience.

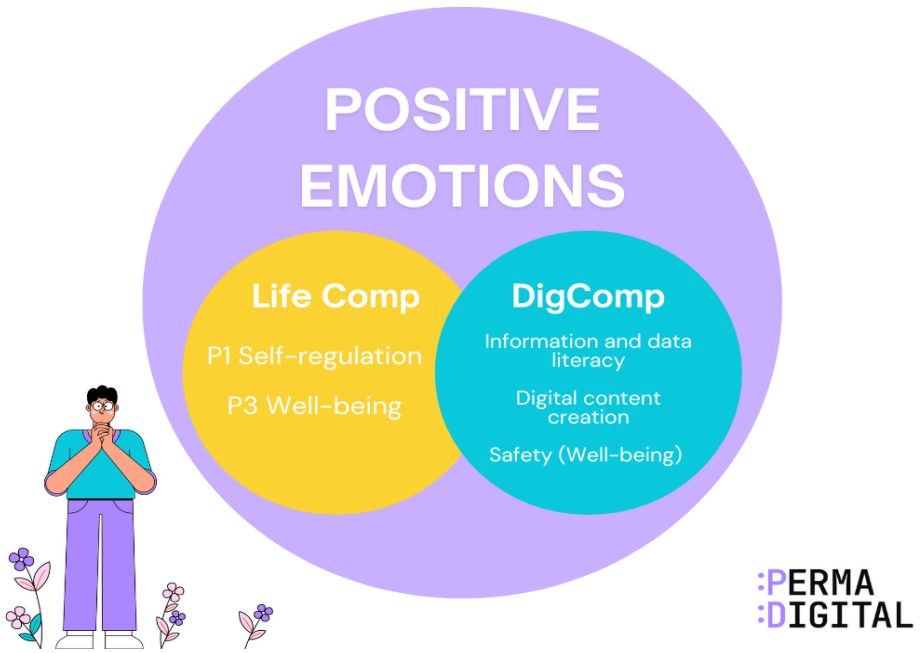

Figure 3. Positive Emotions as an internal factor of digital well-being and its relevant Life and Digital Competences

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Through the development of information and data literacy, individuals learn to articulate their information needs, search effectively, and critically assess the credibility of digital content. The ability to navigate, evaluate, and manage information is essential in today's digital landscape. It enhances academic and professional performance but also contributes to a sense of confidence and control, which are key to emotional well-being. Digital content creation can further support positive emotions by enabling individuals to express themselves creatively, collaborate with others, and contribute meaningfully to knowledge sharing. The life competencies that underpin emotional resilience and well-being include self-regulation, which helps individuals become more aware of their emotions, thoughts, and behaviours, thus directly affecting their well-being. This awareness enables them to maintain a balanced and regulated use of digital technology. The pursuit of well-being encourages a balanced lifestyle that includes care for mental, physical, and social health, as well as sustainable digital habits. Feeling good, being recognised for quality work, and engaging in meaningful digital experiences are all important in supporting emotional and mental health.

Table 5. Key digital well-being competences and their applications in the Positive emotions domain

Key Competences	Applied Digital Well-being Competences
Digital Literacy	Creative use of digital tools Experiential learning with technology Safe and inclusive online engagement
Emotional intelligence and regulation Self-Awareness Emotional resilience	Reflecting on digital experiences (journaling, feedback loops) Mindfulness and emotional regulation
Self-Regulation as Motivation Motivation	Using gamified or interactive platforms for motivation
Digital content creation Creativity	Creative use of digital tools

Focus group discussions with teachers revealed that digital tools foster joy, enthusiasm, and satisfaction, especially when used creatively. Both students and teachers reported feeling happier and more fulfilled when experiential learning was combined with technology. These positive emotions are not temporary, but they are deeply linked to goal achievement and emotional regulation, reinforcing the value of purposefully used, balanced digital pedagogy. From a technology perspective, focus group participants emphasised the importance of smooth, user-friendly design in reducing cognitive load and emotional stress. Emotional safety was a recurring theme, particularly in the context of preventing cyberbullying and promoting respectful online interactions. Tools that incorporate mindfulness prompts were highlighted as effective in supporting emotional regulation and creating calm, focused learning environments.

Digital literacy can be nurtured through the creative use of digital tools, experiential learning with technology, and safe, inclusive online engagement. At the same time, emotional intelligence is strengthened when learners are encouraged to develop self-awareness through reflective practices such as journaling or feedback loops, and to build emotional resilience with mindfulness techniques

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and strategies for emotional regulation. Understanding copyright and licensing fosters respect for intellectual property, while basic programming skills empower learners to solve problems and bring their ideas to life through technology. Equally important is self-regulation as motivation, which is supported by cultivating healthy digital habits and by drawing on motivational strategies offered through gamified or interactive platforms. Finally, creativity as a pathway to fulfilment and joy is fostered through digital content creation and the innovative use of digital tools, enabling learners to express ideas and explore solutions in dynamic and meaningful ways.

Table 6. Toolkit for Teachers and Family to address Positive Emotions in Digital Well-being

<table>
<tr><th>Teachers</th><th>Family</th></tr>
<tr><td>PEDAGOGY

Pedagogical models that spark joy, curiosity, or satisfaction include gamification, which uses playful elements and rewards to make learning fun, and collaborative learning, which fosters social enjoyment. Flipped classrooms and microlearning also support positive emotions by giving learners control and quick wins. Design thinking and challenge-based learning can be emotionally engaging through creativity and real-world relevance.</td><td rowspan="2">THE GOAL

Use technology to spark joy, gratitude, and emotional clarity and notice the lack of positive emotions while attempting to connect them to their causes</td></tr>
<tr><td>NOTICE THE FOLLOWING and inform the parents

Positive attitudes: Experiences excitement, satisfaction, and pride, especially when digital engagement fosters learning success.
Emotional exhaustion: Feels drained or burnt out from excessive internet use; upset, frustrated about the amount of time/energy spent on the internet.
Anxiety or mood dips: Higher screen time (especially over 4 hours/day) links to elevated risks of anxiety, depression, and behavior problems (Liang et al., 2025).
Irritability or low mood: May emerge due to disrupted sleep or overstimulation from social media.</td><td>ACTIVITIES

Positive attitudes and reflection →foster by emoji check-in, meme exchange, positive playlist party, gratitude photo sharing

Emotional exhaustion / burnout → Build in daily device-free downtime and relaxation routines.

Anxiety or mood dips → Support consistent sleep hygiene (no screens 1h before bed).

Irritability / low mood from overstimulation → Guide mindful use: pause apps that trigger negativity.</td></tr>
<tr><td>TRY THE FOLLOWING

Emotion wheels or maps: Integrate visual tools to help students name their feelings during or after learning activities, especially when using digital tools. Ask them to name their feelings before, during and after the activity. This can be useful also to evaluate their learning outcomes as well as well-being.</td><td>CONVERSATION STARTERS

“What’s something online that made you feel good / bad today?”
“What kind of negative effects can overuse of digital devices can have?”

Self-reflection questions:</td></tr>
</table>

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Purpose framing: Use language that emphasises purposeful thinking and strategy when it comes to using digital tools **Gamified challenges:** Design tasks with progressive difficulty and visible progress to reinforce persistence. **Feedback loops:** Include short surveys or emoji-based check-ins to gauge emotional responses to digital content. **Students track focus in a shared Google Doc or Google Sheet:** For example, after each lesson, they log: I completed the task I was working on. How focused I felt (1–5) Main distraction One strategy I used to stay on task. The teacher can review weekly and discuss improvements	"What helped me stay focused today?" or "What distracted me?" "How long was I in a focused / distracted state?" "How did I feel the time passing by (fast or slow)?" What are you grateful for today? "digital gratitude wall" using digital tools, such as Padlet or Jamboard, where they post daily positives

4.2 Engagement

Engagement is about being deeply absorbed in purposeful, challenging, and enjoyable digital activities. It emphasises flow, curiosity, and learner autonomy, encouraging students to take ownership of their learning through interactive, personalized, and immersive digital experiences.

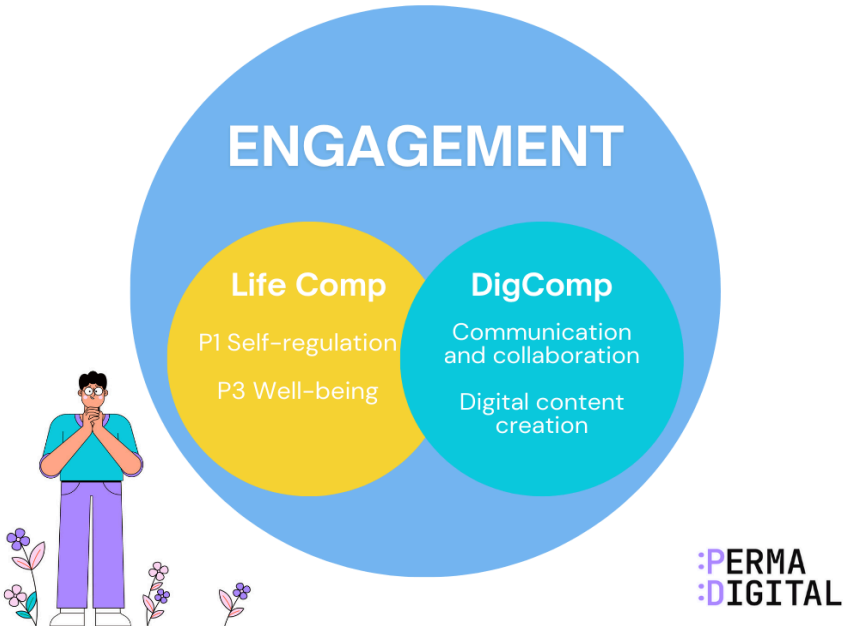

Figure 4. Engagement as an internal factor of digital well-being and its relevant Life and Digital Competences

Digital content creation supports engagement by enabling learners to express themselves creatively and constructively in a balanced manner. In pursuit of well-being, self-regulation equips learners with the emotional and cognitive tools to stay focused, manage distractions, and persevere through challenges.

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Table 7. Key digital well-being competences and their applications in the Engagement domain

Key Competences	Applied Digital Well-being Competences
Cognitive Control Metacognition	Using interactive tools (e.g., Minecraft, quizzes, podcasts) Managing digital distractions and sustaining attention Promoting healthy digital habits and balance Modeling healthy digital behaviors Managing screen time and recognizing digital health impacts Using structured tools (e.g., timers, checklists, planners) to complete tasks
Adaptive Learning Purposeful Use of Technology	Integrating digital tools across subjects Personalising learning through adaptive digital platforms (e.g., game-based and project-based learning)

Engagement is not merely about participation; it is about cultivating a sense of purpose, curiosity, and sustained attention that leads to deeper learning and personal growth.

Teacher focus groups emphasised that interactive tools significantly increase motivation and participation. While students are often active users of digital platforms, they still require guidance on healthy digital habits. Teachers also reported using reflective practices and cross-curricular integration to deepen engagement and make learning more meaningful. From the tech perspective, participants noted that platforms promoting ease and flow enhance sustained attention. Multimedia and interactive tools were seen as essential for supporting deeper learning, while game-based and project-based learning methods were praised for increasing immersion and learner autonomy. In digital contexts, engagement is enhanced when learning is personalised to align with individual strengths, interests, and needs. By designing dynamic and interactive digital experiences, educators can transform passive consumption into active participation. This includes promoting situated learning—where knowledge is applied in authentic, real-world contexts—and encouraging learners to take ownership of their digital learning journeys.

Cognitive control and metacognition competences enable learners to have healthier, balanced, and meaningful engagements with digital tools. They learn to participate in digital society responsibly, manage their online identities, and contribute to civic life through digital platforms. These interactions not only build technical fluency but also foster a sense of belonging and shared purpose.

Adaptive learning and purposeful use of technology are very important competences when it comes to increasing the engagement levels of students, as well as having a direct effect on learning outcomes. Allowing learners to have personalised and adaptive learning pathways with the support of digital tools, matching with the right pedagogies such as game-based and project-based learning, are all possibilities for fostering other relevant skills and maintaining motivation, curiosity.

Table 8. Toolkit for Teachers and Families to address Engagement in Digital Well-being

Teachers	Families

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:PERMA
:DIGITAL

PEDAGOGY

Deep involvement and flow are central to *design thinking, challenge-based learning, and task-based learning*, where learners solve problems or complete meaningful tasks. *Gamification* boosts engagement through game mechanics, while *cognitive theory-based approaches* support mental immersion. *Flipped classrooms and microlearning* also enhance engagement by allowing learners to interact with content at their own pace.

THE GOAL

Support focus, emotional regulation, and cognitive control in tech use.

NOTICE THE FOLLOWING *and inform the parents*

It is crucial to notice in students the signs of digital well-being and the lack of it surfaces when it comes to ENGAGEMENT:

Healthy engagement: Displays flow during digital learning (immersed, focused attention) while being able to stop the engagement.

Lack of engagement: Exhibits cognitive overload through reduced attention span or executive control after, during heavy screen use.

Detachment: Looks disengaged from real-world activities or body awareness after video-intensive sessions.

Disconnection / Reduced Physical Awareness: Long screen sessions can narrow attention to digital stimuli, making people less aware of their posture, breathing, and bodily needs.

Disrupted Sleep-Wake Rhythms:
Overuse of devices, especially at night, interferes with melatonin production and circadian rhythms, weakening the natural bodily signals for rest (Cain & Gradisar, 2010).

ACTIVITIES

Pomodoro family challenge: Use timers to focus on tasks together, then take tech-free breaks, walks.

App detox day: Choose one day/hour for tech-free family time and reflect on how it feels.

Mindful tech use: Be mindful of symptoms and notice stiffness in back, eye dryness. Foster constant "check-ins" with their bodies. Apps like Forest or Insight Timer to practice digital mindfulness together can be helpful.

App review night: Explore and rate apps together based on how they support focus or distract.

Focus buddy system: Pair up to help each other stay on task during homework or creative projects.

TRY THE FOLLOWING

Tech boundaries: Use structured tech breaks or "focus zones" where devices are used only for specific tasks.

Single-tasking culture: Promote one-task-at-a-time learning with visible timers or Pomodoro techniques.

Digital hygiene education: Teach students about attention economy, notification management, and mindful tech use.

Environmental cues: Use lighting, sound, and seating arrangements to support concentration.

Focus corners: Create physical or digital spaces where students can go to reset or concentrate.

Teacher modeling: Demonstrate your own strategies for staying focused and emotionally balanced.

CONVERSATION STARTERS

"What helps you stay focused when using technology?"

"Do you notice when you start scrolling without thinking? What do you do?"

"How do you feel after multitasking online?"

"How do you feel when you take a break from screens?"

"What's your favorite way to reset your focus?"

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4.3 Relationships

This area highlights the importance of building respectful, empathetic, and inclusive relationships in digital spaces. It supports collaborative learning, peer connection, and school–family partnerships, creating a sense of belonging and trust in both online and offline environments.

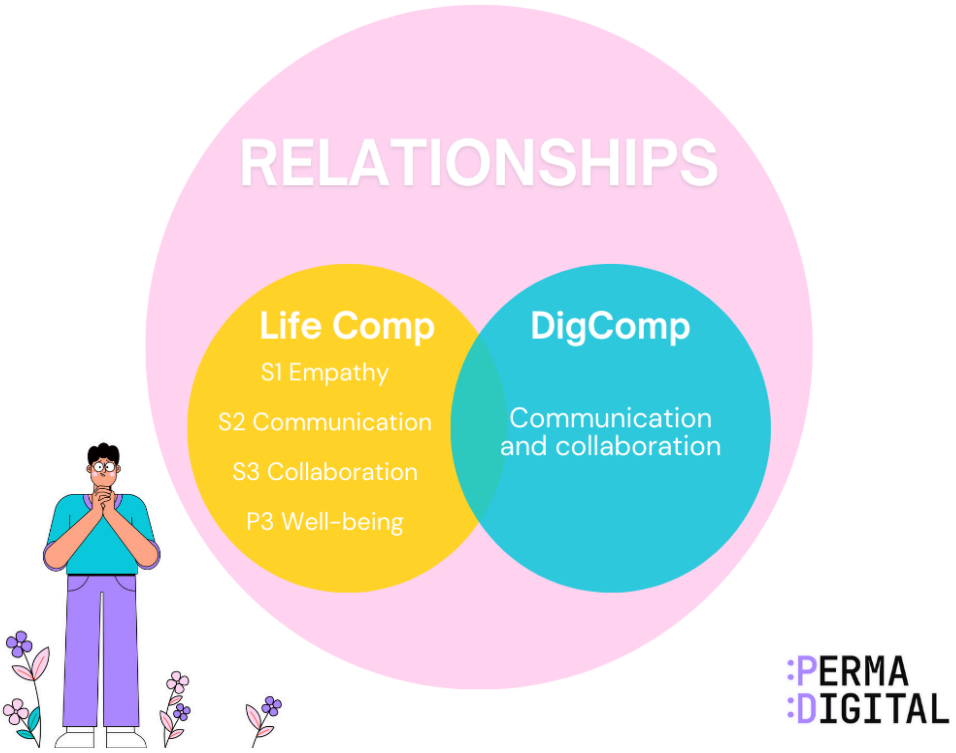

Figure 5. Relationships as an internal factor of digital well-being and its relevant Life and Digital Competences

The development of digital communication and collaboration skills is central to this domain. Learners are encouraged to interact across diverse cultural and generational contexts, share content responsibly, and engage in participatory digital citizenship. They learn to collaborate effectively using digital tools, co-constructing knowledge while practicing netiquette and managing their digital identities with care and integrity. Life competencies play a crucial role in supporting these relationships. Empathy enables individuals to understand and respond appropriately to the emotions and experiences of others, while effective communication ensures that messages are conveyed clearly and respectfully. Collaboration skills foster teamwork and mutual recognition, helping learners navigate group dynamics and contribute meaningfully to shared goals. Well-being is also a key consideration as strong digital relationships contribute to life satisfaction and social health, while also supporting mental and emotional resilience. By promoting inclusive, empathetic, and collaborative digital practices, this domain empowers educators, students, and policymakers to create learning environments where relationships thrive both online and offline.

Table 9. Key digital well-being competences and their applications in the Relationships domain

Key Competences	Applied Digital Well-being Competences

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Empathy Cultural Awareness Respectful Dialogue Emotional Regulation	Practicing respectful online communication Collaborating across diverse cultural and generational contexts
Digital Communication Community Engagement Emotional Regulation Global Awareness Conflict Resolution	Netiquette and learning behavioural norms and know-how while interacting in digital environments Building school–family partnerships to reinforce digital norms Engaging in citizenship through digital technologies Designing inclusive digital environments
Collaboration Teamwork School–Home Collaboration	Co-construction and co-creation of content and knowledge Facilitating collaborative learning and peer-led initiatives

Relationships and the importance of building and sustaining strong, meaningful connections in digital environments is a core pillar of the PERMA model of well-being. It recognises that social connection is fundamental to human flourishing. In the context of digital education and communication, fostering quality relationships requires intentional design, empathy, and the cultivation of respectful, inclusive interactions.

Teacher focus groups highlighted the value of collaborative learning, peer-led initiatives, and respectful online communication as key drivers of relational well-being. There was a strong call for school–family partnerships to reinforce digital norms and values at home and in the classroom. Teachers also emphasised their role in modeling healthy digital behaviors and promoting a sense of shared responsibility for maintaining positive online environments.

Technology providers stressed the importance of tools that allow educators to monitor and manage behavior, which help foster safer online interactions. They also emphasised the psychosocial dimensions of digital well-being, advocating for tools that support emotional safety, empathy, and inclusion. A recurring theme was the need for collaborative development between educators and tech providers to ensure that digital tools align with pedagogical and relational goals. Digital technologies offer powerful tools for connection, but their impact depends on how they are used. When thoughtfully integrated, they can support mutual respect, understanding, and empathy among learners and educators. High-quality digital teacher-student and peer-to-peer interactions are essential for creating a sense of belonging and trust. Collaborative digital learning environments, where students co-create knowledge and support one another, further strengthen these bonds.

Table 10. Toolkit for teachers and families to address relationships in digital well-being

Teachers	Families

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PEDAGOGY	THE GOAL
Models that emphasize social interaction, like *collaborative learning, social learning, and challenge-based learning*, strengthen relationships. These approaches encourage teamwork, peer feedback, and shared goals. Even *teacher-led models* can support relationships when the teacher fosters a supportive environment.	Learning empathy and respectful communication online, learning to find best ways to seek connections with others.
NOTICE THE FOLLOWING *and inform the parents* **Social connection:** Uses digital tools to maintain friendships—kids with more screen time may also report more close friends. **Fake social connection:** Extensively uses social media apps, but in fact, the majority of their time is used to scroll content not created by their friends and social circles. **Isolation:** High social media use strongly correlates with social isolation, mental exhaustion, and sleep problems. **FoMO and fatigue:** Signs of constant checking ("fear of missing out") and social-media fatigue indicate unhealthy attachment and lack of self-awareness.	**ACTIVITIES** **Digital compliment chain:** Send kind messages to each other or friends online and track how many you can do in a week. **Online empathy journal:** Reflect on how others might feel in digital interactions (e.g., receiving a comment, being left out). **Family group chat challenge:** Use a group chat to share daily affirmations or appreciation messages. **Netiquette family pact:** Create shared rules for respectful online behavior and revisit them Teach tone awareness: Help understand how tone can be misinterpreted in text and how to clarify intent.
TRY THE FOLLOWING **Establish netiquette norms: Co**-create a digital code of conduct with students (e.g., tone, response time, emoji use, respectful disagreement). **Model respectful dialogue:** Teachers should demonstrate how to give constructive feedback and disagree kindly. **Use structured formats:** Encourage respectful turn-taking in forums or chats using sentence starters like "I appreciate…" or "I wonder if…" **Perspective-taking activities:** Use role-play or digital storytelling to explore different viewpoints. **Co-regulation:** Pair students to support each other's focus and emotional state. **Collaborative platforms:** Use tools like Google Docs, Padlet, or Teams to foster shared work and respectful commenting. **Digital empathy circles:** Create small groups for students to share experiences and listen actively.	**CONVERSATION STARTERS** "How do you show respect when chatting online? How do you show kindness online?" "Have you experienced bullying online? What did you do about it / what would you do if you experienced it?" "Have you ever misunderstood someone's tone online? What did you do?" "What's a kind message you received recently?" "Have you ever seen someone being treated unfairly online? What did you do?" "What's the difference between joking and hurting someone online?"

4.4 Meaning

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Meaning is cultivated when digital learning aligns with personal values, strengths, and broader societal goals. This domain encourages learners to use technology for creative expression, civic engagement, and responsible digital participation that contributes to personal and community growth.

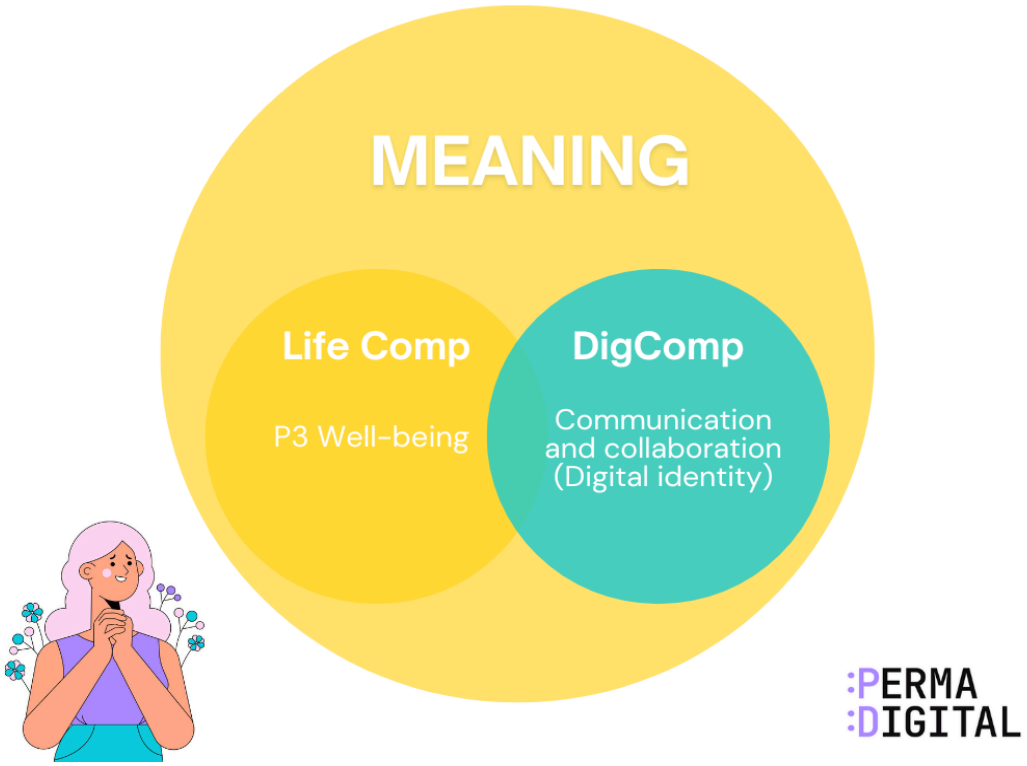

Figure 6. Meaning as an internal factor of digital well-being and its relevant Life and Digital Competences

The pursuit of well-being ensures that learners are not only achieving academic or professional goals but also nurturing their overall life satisfaction and health. When digital learning is connected to personal growth and societal contribution, it becomes more than a task—it becomes a meaningful journey.

Table 11. Key digital well-being competences and their applications in the Meaning domain

Key Competences	Applied Digital Well-being Competences
Self-Awareness Meaning-Making	Reflecting on personal values and strengths through digital journaling or media
Purposeful Use of Technology Critical Thinking	Practicing responsible and informed digital use Aligning digital learning with personal and societal contribution
Digital identity Privacy Awareness Digital Ethics	Understanding digital identities and awareness of how to protect one's own reputation online Understanding one’s own digital footprint

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Digital citizenship Transfer of Learning	Applying knowledge in real-world digital contexts (situated learning) Cross-Curricular Thinking
Sustainability Awareness	Learning about the environmental impact of digital tools

Cultivating meaning in digital learning helps individuals connect their educational experiences to personal values, strengths, and a broader sense of purpose.

Teacher focus groups emphasised that digital well-being is a core life skill, essential for navigating modern life. They advocated for the purposeful use of digital tools in both teaching and personal practice, stressing that technology should enhance, not replace, experiential learning, play, and social interaction. Tech focus groups echoed these sentiments, highlighting that digital tools should support not just academic goals but broader developmental needs. There was a strong emphasis on responsible and informed digital use, with examples such as school-based media projects and AI literacy initiatives being seen as pathways to meaningful engagement.

In digital contexts, meaning is fostered when learners are encouraged to align their use of technology with personal aspirations and values. This includes setting meaningful goals, using digital tools to enhance their strengths, and contributing positively to their communities. When learners see how their digital engagement can make a difference, whether through creative expression, civic participation, or social inclusion, they are more likely to feel motivated and fulfilled. Equally important is the protection of physical and psychological well-being. Environmental awareness is also integral to meaningful digital engagement. By understanding the ecological impact of digital tools and adopting sustainable practices, learners can make informed choices that reflect their values and contribute to a more responsible digital culture.

Table 12. Toolkit for Teachers and Families to address Meaning in Digital Well-being

Teachers	Families

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:PERMA
:DIGITAL

PEDAGOGY	THE GOAL
Learning becomes meaningful when it connects to real life or personal values. *Design thinking, challenge-based learning,* and *task-based learning* often involve solving authentic problems, which gives learners a sense of purpose. *Social learning* and *teacher-led approaches* can also convey cultural or ethical meaning, while *independent learning* allows learners to pursue personally meaningful goals when given freedom to choose tasks and projects. *Digital storytelling* as a methodology lets students create multimedia narratives that reflect personal experiences or advocate for causes they care about.	Purpose, motivation, lifelong learning, connect digital learning and actions to personal values and societal contribution.
NOTICE THE FOLLOWING *and inform the parents* **Purposeful use:** Engaging with technology in structured, meaningful ways supports a sense of purpose and self-efficacy. **Superficial use:** Mindless scrolling or passive browsing fails to fulfill deeper needs for competence, autonomy, or relatedness. **Extremes:** Sudden withdrawal from platforms, emotional distress, or repeated cycles of overuse and deletion.	**ACTIVITIES** **Family impact project:** Choose a cause (e.g., recycling, animal welfare), research, and take action together. **Digital time capsule:** Create a shared folder with videos, letters, or photos that reflect your values. **"Why it matters" board:** Post things you've learned and why they're important to you or others. **Digital storytelling:** Create short videos or slideshows about family values or causes you care about. **Learning together:** Watch documentaries or take online courses as a family and discuss what you learned.
TRY THE FOLLOWING	**CONVERSATION STARTERS**
Superficial scrolling/aimlessness → Teach to pause and ask: "Why am I here online?" "What is my learning goal?" "What platform should I use?" **Disconnection/lack of relevance** → Connect digital tasks with personal goals, hobbies, or community issues. **Purposeful engagement** → Encourage content creation (writing, coding, art) instead of passive consumption. **Signs of being "lost" online** → Guide reflection: journal or share what was learned after digital time.	"How do you want others to perceive you online?" "What personal information are you okay with going public?" (practice boundary-related questions and inform about data security) "What are those digital platforms and contents that you care deeply about?" "What is something you are good at? How can we use what we know to help others?" "What's a skill or value you want to carry with you for life?" "What's something you've learned online that changed how you see the world?" "How can we use technology to help others?"

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	"What's a digital project you'd love to create that reflects who you are?"

4.5 Accomplishment

Accomplishment centers on helping learners set goals, track progress, and celebrate success through digital tools. It promotes self-efficacy, problem-solving, and a growth mindset, empowering students to reflect on their learning journey and build confidence in their digital competence.

Figure 7. Accomplishment as an internal factor of digital well-being and its relevant Life and Digital Competences

Life competencies further strengthen this domain. Flexibility enables learners to navigate uncertainty and adapt to change, while the pursuit of well-being ensures that achievement is balanced with care for mental, physical, and emotional health. Learning-to-learn skills—such as critical thinking, goal setting, and self-monitoring—equip learners to plan, organize, and evaluate their progress over time. Problem-solving is at the heart of this domain. Learners develop the ability to troubleshoot technical issues, evaluate and select appropriate tools, and adapt digital environments to meet their personal needs. They are also encouraged to use technology creatively—to generate new ideas, improve processes, and co-create solutions with others. These experiences help learners see themselves as capable contributors in a rapidly evolving digital world.

Table 13. Key digital well-being competences and their applications in the Accomplishment domain

Key Competences	Applied Digital Well-being Competences

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Managing learning Goal Setting Self-Monitoring Learning-to-Learn Metacognition	Set specific, measurable, achievable, realistic, and time-bound goals (SMART) Receiving and applying feedback in digital environments
Flexibility Managing transitions and uncertainty Growth mindset Resourcefulness	Reflecting on digital habits and progress Recognizing the value of hard work and perseverance
Problem solving Technical Proficiency	Solving real-world problems using digital tools Troubleshooting and adapting digital tools to meet personal needs Participating in skill-building activities (e.g., coding, media production)
Capacity Building Lifelong Learning Educator Support Emerging Technologies AI Ethics Digital Literacy	Providing ongoing teacher training and professional development Addressing screen addiction, cyberbullying, and peer pressure Integrating AI literacy and ethical use education

Accomplishment describes the experience of achieving goals, receiving meaningful feedback, and feeling a sense of success, highlights the importance of recognising progress and celebrating achievement as essential drivers of motivation, confidence, and lifelong learning.

Teacher focus groups emphasised that students gain confidence and self-efficacy through safe, guided use of technology. Teachers feel a strong sense of accomplishment when students reflect on and improve their digital habits, and they noted that structured tools help support skill-building and goal achievement. Tech focus groups highlighted that platforms should help users achieve goals effectively and comfortably. Tools such as timers, checklists, and structured features were seen as valuable for supporting task completion. Additionally, training and support for both teachers and students were identified as key to empowering success in digital environments.

In digital learning environments, accomplishment is nurtured through opportunities to solve real-world problems, innovate with technology, and reflect on personal growth. Learners are encouraged to identify their needs, set goals, and use digital tools to address challenges creatively and effectively. This process not only builds technical proficiency but also fosters a sense of agency and purpose. A key aspect of accomplishment is the ability to recognise and address gaps in one's own digital competence. Learners are supported in developing a growth mindset—the belief that abilities can be developed through effort and learning. They are guided to reflect critically on their progress, seek feedback, and take ownership of their learning journey. For educators, students, and policymakers, this domain offers a vision of digital education that values not only outcomes but also the process of learning. It promotes environments where learners are encouraged, supported, and empowered to succeed—where accomplishment is not just measured by results, but by growth, reflection, and resilience.

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:PERMA
:DIGITAL

Table 14. Toolkit for Teachers and Families to address Meaning in Digital Well-being

School	Family
PEDAGOGY Pedagogical models that emphasize mastery and progress, like **task-based learning, microlearning, and gamification,** support a sense of accomplishment. **Flipped classrooms and independent learning** also promote achievement by allowing learners to take ownership of their progress. **Cognitive theory-based approaches** help learners understand how they learn, which can lead to deeper mastery.	**THE GOAL** Celebrate growth, feedback, and mastery in digital environments.
NOTICE THE FOLLOWING **Growth mindset:** Having clear learning goals and the ability to use the right digital tools evokes pride and self-efficacy. **Comparison:** Comparing oneself to others in terms of accomplishments results in lower self-esteem and a lack of self-awareness. **Underachievement:** Excessive device use disrupts well-being and increases anxiety, depression, and ADHD symptoms, resulting in underachievement (Liang et al., 2025). **Sleep-related impairment:** Sleep quality declines (e.g., due to social media fatigue or addiction), which in turn hurts academic/emotional performance.	**ACTIVITIES** **Growth Mindset** → Celebrate effort and curiosity when your child uses digital tools for learning. **Comparison** → Talk about how online posts show highlights, not real life. **Underachievement** → Set healthy device boundaries, like curfews for screens. **Sleep-Related Impairment** → Keep devices out of bedrooms to support better sleep.
TRY THE FOLLOWING **Growth Mindset** → Set clear learning goals and let students choose digital tools to reach them. **Comparison** → Emphasize individual progress and support students in finding their strengths instead of peer comparison. **Underachievement** → Build screen breaks into lessons to prevent overload. **Tool exploration sessions:** Let students experiment with multiple platforms (e.g., Canva, Notion, Miro) and reflect on what works best for them. **Digital help desks:** Create peer-led or	**CONVERSATION STARTERS** After a challenge or mistake in digital life (e.g., tech issue, failed upload, communication issue), reflect together using growth mindset language: • "What did I learn?" • "What can I try next?" • "Who can I ask for help?" "What part of learning a skill was hardest for you? How did you overcome it?" "What's a (digital) skill you want to master this year?" "What's something you've gotten better at using technology?"

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teacher-supported forums for troubleshooting tech issues. **Adaptation challenges:** Give tasks that require students to choose and justify their tool use based on personal learning needs. **Digital safety modules:** Teach privacy, data protection, and ethical use through interactive scenarios. **Confidence-building tasks:** Scaffold tech use with increasing complexity, celebrating milestones (e.g., first video edit, first blog post). **Responsible use contracts:** Co-create agreements on respectful and safe tech behavior, revisited regularly.	"What are you most proud of this week? What helped you succeed?" "What's a (digital) project you're proud of?"

4.6. External Factors

External factors play a significant role in shaping the digital well-being of adolescents, as they represent systemic, structural, and foundational influences that teachers and parents can only minimally affect. These include national curriculum frameworks and policy decisions in education, school infrastructure and access to digital tools, cultural contexts, teacher professional development, and household socio-economic conditions. Recognising these external factors and providing targeted recommendations helps to strengthen safety, equity, and long-term digital resilience.

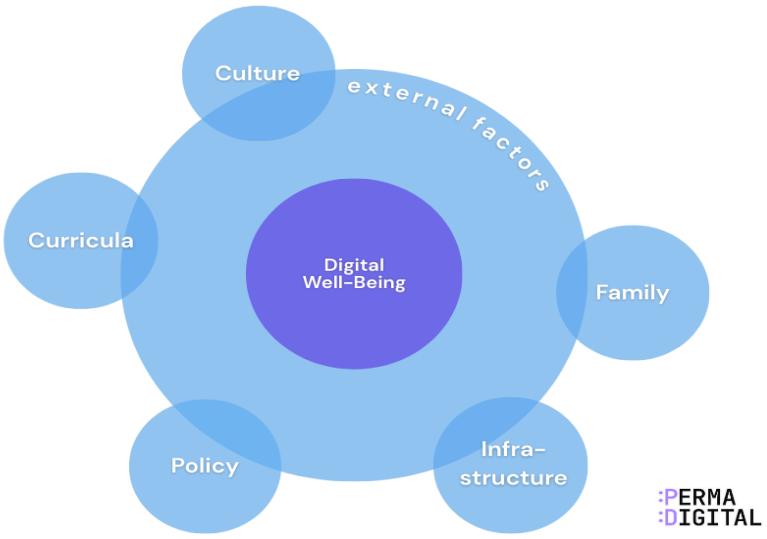

Figure 8. The external factors od the PERMA Digital Well-being Framework

Table 15. External factors for supporting digital well-being

External Factors	Recommendations for Digital Well-being
Curriculum Digital Well-being Practice Aligning with EU frameworks (DigComp, LifeComp) Digital Literacy	Embed digital well-being across all subjects, not just ICT or Health Education Align national curricula with EU frameworks like DigComp, LifeComp, and PERMA to ensure emotional and social dimensions are addressed.

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Policy Strategic Alignment Policy Coherence Psychosocial Support	Avoid simplistic bans on digital tools; instead, promote responsible and informed digital engagement Support strategic planning to overcome resistance to innovation and ensure consistent implementation across schools.
Infrastructure Accessibility Co-Design Usability Testing	Prioritize capacity building over hardware provision, focusing on teacher competence and support systems Ensure secure platforms and ethical AI use, with clear policies on data privacy and screen time monitoring.
Culture Management support Support for digital skill development	Co-develop with students, teachers, and parents to set shared norms for healthy tech use Model Healthy Digital Habits Engaging in guided, safe use of technology
Family Family well-being Socio-economic background Education level of parents	Offer workshop and webinar sessions on digital stress, screen time, and online safety Establish shared norms between school and home for responsible digital use. Provide practical tips for setting boundaries and fostering self-regulation at home

External factors serve as a bridge between strategic planning and classroom practice, ensuring that digital well-being is not treated as an add-on but as a core component of educational ecosystems. It empowers schools to create environments where technology enhances—not hinders—learning, health, and human connection. These factors are collected from the mapping research and the comments received from our focus groups.

Digital well-being is not an isolated skill but a priority that must be reflected in how schools are designed, how policies are written, and how learning is delivered. Learners must be equipped to protect their devices, data, and personal privacy in digital environments.Schools should create environments that are safe, inclusive, and conducive to meaningful digital learning. To support this integration, several key recommendations have emerged from national curriculum mappings. These include the development of formal assessment tools to consistently evaluate digital well-being outcomes across schools, and the enhancement of teacher training by embedding digital well-being into both initial teacher education and ongoing professional development. Curricula should broaden their emotional focus to include digital stress, self-regulation, and online mental health, while digital well-being themes should be embedded across all subjects, not just ICT or health. Family engagement is also essential, with parents needing tools, workshops, and guidance to reinforce digital well-being at home. Furthermore, EU frameworks such as DigComp, LifeComp, and PERMA should be leveraged more holistically, not only for technical skill development but also to address the emotional and social dimensions of digital life.

These recommendations are reinforced by insights from educator focus groups, which highlight several environmental factors that influence the success of digital well-being initiatives. Institutional support remains inconsistent, with a lack of standardised curricula and formal policies. Teachers call for mandatory continuing professional development, age-appropriate resources, and more consistent support from edtech providers—some of whom offer training, while others focus

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solely on tools. Family involvement is another critical factor, as unsupervised digital use at home is a major concern. Teachers emphasise the need for shared norms and stronger collaboration between school and home, noting that while parents are interested, they often require more guidance to support digital well-being effectively.

Access to resources continues to be a challenge. Although digital platforms and tools are commonly used, limited access to devices and time constraints hinder integration. Teachers request visual cues, guides, and expert visits to support awareness and implementation. Cultural and generational context also plays a role. While students are often tech-savvy, they may lack critical awareness, and older educators may struggle to keep pace with evolving technologies. This highlights the need to bridge generational divides in digital competence. Safety and risk factors such as screen addiction, cyberbullying, peer pressure, and the emotional toll of constant connectivity are also pressing concerns. Teachers stress the importance of self-regulation, digital detoxes, and critical evaluation of content, noting that these risks extend beyond the classroom and require community-wide approaches.

Technology providers add further depth to these environmental factors. In terms of infrastructure and technical support, they emphasise that addressing digital skills gaps among teachers is essential for meaningful technology integration. Adequate infrastructure in schools is necessary, but providers argue that capacity building should take precedence over hardware provision. Training and support are more impactful than simply increasing device access. In the area of professional development, tech providers advocate for ongoing teacher training that includes hands-on practice, instructional videos, and clear documentation. They suggest that incentivised participation—such as career advancement opportunities—can boost engagement. As AI tools become more prevalent, providers stress the importance of AI literacy and ethical use education, ensuring that educators are prepared for responsible digital tool use. Collaboration between educators and developers is also crucial to ensure content accuracy and platform usability. From a policy and systemic perspective, technology providers call for stronger government involvement and the use of national frameworks to support long-term impact and consistency. They highlight the need for strategic planning to overcome resistance to innovation and caution against simplistic bans on digital tools. Instead, policies should focus on educating students for responsible and informed digital engagement.

Drawing from the LifeComp and DigComp frameworks, this domain integrates key competencies. Self-regulation is supported by embedding emotional awareness and behavioral management into curriculum goals, lesson planning, and school-wide digital behavior policies. Well-being is addressed holistically, including digital overload, screen time, and emotional safety online. Schools can reflect this through health education and initiatives like digital detox days or mindfulness programs. Communication is fostered through respectful and inclusive digital interaction, supported by policies on cyberbullying, digital citizenship, and online collaboration norms. Problem-solving encourages critical awareness of how digital tools affect well-being, supported through teacher training, student workshops, and guidelines for healthy tech use. Safety is ensured through infrastructure and policy that protect physical and psychological well-being, including secure platforms, screen time monitoring, and ethical AI and data privacy practices.

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5 Conclusions

The PERMA Digital Well-being Framework offers a holistic approach to digital well-being as a multidimensional construct shaped by both internal and external factors. It integrates insights from educators, technology providers, and policy research to address the full spectrum of digital life: from safe and inclusive online environments to purposeful technology use that supports learning, creativity, and well-being. It emphasises the internal domains of Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment as pillars that can be actively nurtured through school education and parenting. At the same time, it acknowledges the powerful role of external influences (such as policy, curriculum, infrastructure, cultural contexts, and socio-economic conditions) that shape the opportunities and constraints within which digital well-being can be developed. Integrating and supporting digital well-being, safety, and relevant competences into the foundational structures of education promotes a systemic and sustainable approach to digital education that supports the emotional, physical, and social health of learners and educators alike.

By mapping current practices, policies, and educational approaches against the PERMA framework, this project has shown both the strengths already present in schools and the gaps that require greater attention. While engagement and relationships are often well-supported, domains such as meaning and positive emotion remain underrepresented, underscoring the need for more balanced approaches to digital well-being in education. The framework and resources presented here aim to provide schools, teachers, parents, and policy stakeholders with practical strategies to identify, foster, and sustain digital well-being in everyday contexts. Through visualization, competence mapping, and toolkits, actionable guidance is offered to recognize signs of diminished digital well-being and address them effectively in classrooms and at home.

Looking ahead, the success of this framework depends on a holistic, collaborative effort. Teachers and families can foster individual resilience and self-regulation, while policymakers and education systems must support digital well-being through awareness raising, curriculum and policy re-thinking, as well as equitable access to digital and mental health resources.

The PERMA Digital approach can contribute not only to healthier relationships with technology but also to the broader goal of cultivating safe, equitable, and meaningful digital learning environments for all young people. The PERMA Digital Framework provides the basis for the development of PERMA Digital Index in the deliverable D2.3, a tool to evaluate the teacher, student and school level digital well-being. Through the expert and stakeholder reviews part of the PERMA Digital project, the framework will be refined and iterated to ensure its relevance to the target groups.

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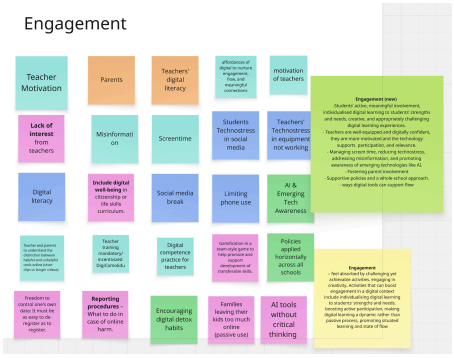
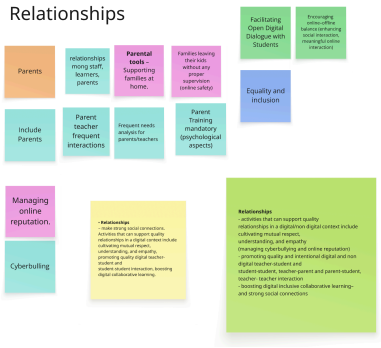
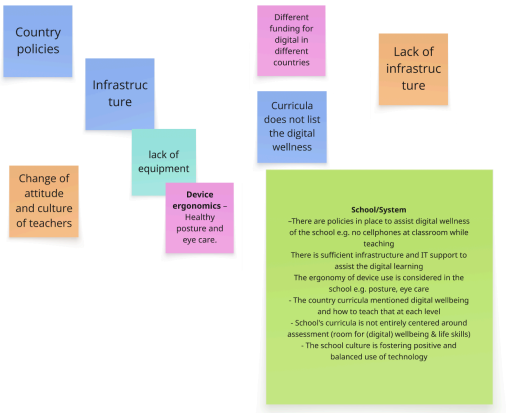
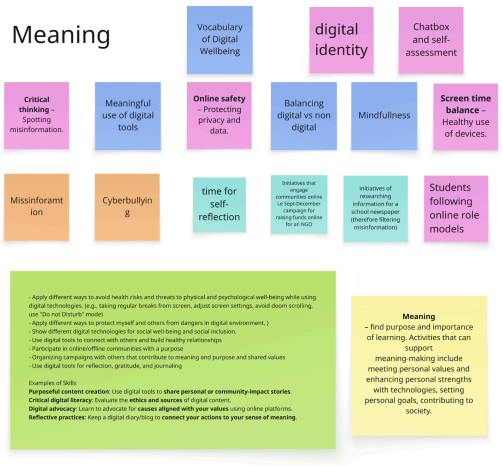
Appendix

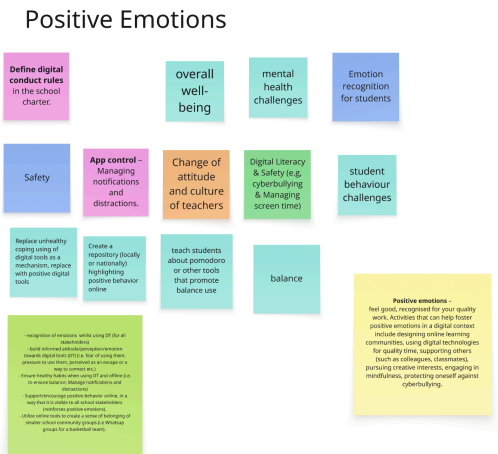
1. *The internal focus group activity notes*











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