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EDU ckathons

GUIDE

VET
design

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1. INTRODUCTION

1.1. PURPOSE OF THE GUIDE

The **EDUckathons Guide** is a pioneering shift in the Vocational Education and Training (VET) sector, distinguishing itself through its innovative application of design thinking - a methodology not yet widely recognized or implemented within VET.

This guide serves as a valuable resource for VET professionals and educators - including managers, leadership staff, instructional designers, curriculum developers, and trainers - who seek to organize EDUckathons, innovative and design-driven events that bring educators and learners together to co-create meaningful learning experiences. It translates the design thinking approach into a practical framework for the VET sector, enabling educators to apply creative methodologies in real contexts.

It also aims to provide methodological guidance for VET managers to organize education hackathons (EDUckathons) for VET educators and trainers to design and curate innovative, market-needed, and learner-centred VET offerings. Beyond being an event manual, the guide introduces EDUckathons as both learning content and a teaching method, offering a structured, hands-on way to embed creativity, inclusion, and innovation into vocational learning.

Through this guide, VET professionals will gain the knowledge and tools to:

- **Empathize** with their learners and target groups.
- **Define** authentic educational needs and opportunities within VET contexts.
- **Ideate** creative, human-centred solutions.
- **Prototype** innovative learning activities, tools, or approaches.
- **Test** and refine ideas based on real feedback and results.

While traditional hackathons focus on resolving technical challenges, the EDUckathon model prioritizes inclusion, creativity, skill development, and the achievement of tangible learning outcomes.

Some of the components of the guide are: Background on EDUckathons, Objectives and Goals, Step-by-Step Planning and Organization, Roles and Responsibilities, Inclusion and Creativity, Format and Structure, Mentoring and Guidance, and Assessment and Evaluation.

Together, these elements form a holistic framework that introduces VET professionals to a creative, participatory, learner-centred strategy for learning and training. Following the guide—and participating in EDUckathon pilots—will allow educators and trainers to apply everything they learn to real-world challenges, designing innovative, inclusive, and relevant solutions for their learners and institutions.

1.2. WHAT ARE EDUCKATHONS?

EDUckathons are collaborative, innovation-driven learning events inspired by the hackathon model but redesigned for the education and training context. Rooted in design thinking principles, EDUckathons combine creativity, teamwork, and practical problem-solving to co-create educational solutions that are meaningful, feasible, and impactful.

In an EDUckathon, participants - typically educators, trainers, learners, and stakeholders - work together to address real challenges within the VET system. Each event unfolds through five structured stages:

- Empathize – Understanding the target group and their needs.
- Define – Framing the challenge clearly and meaningfully.
- Ideate – Generating a range of creative solutions.
- Prototype – Turning ideas into tangible, testable outputs.
- Test – Gathering feedback and refining solutions.

Through this process, EDUckathons foster deep learning, collaboration, and practical creativity. They move away from passive instruction toward active participation, enabling both educators and learners to co-design innovative ways of teaching, learning, and applying skills in real-world scenarios.

1.3. HOW EDUCKATHONS DIFFER FROM TRADITIONAL HACKATHONS

Traditional hackathons are typically technology-centered events focused on developing apps, products, or digital solutions within a short timeframe. In contrast, EDUckathons emphasize pedagogical innovation, learning design, and educational transformation.

Rather than producing software or technical prototypes, EDUckathon participants generate:

- Learning models that encourage creativity and collaboration.
- Training methods that respond to real needs in vocational education.
- Curricular or pedagogical innovations that enhance inclusion and engagement.

EDUckathons are inclusive by design - they welcome diverse voices, roles, and disciplines. Collaboration replaces competition, and reflection is as valuable as innovation. The process encourages participants to think holistically, considering not only what they design but also for whom and why.

This human-centred approach aligns perfectly with design thinking, ensuring that each EDUckathon becomes a shared journey of learning and co-creation. The outcomes are not just ideas but tested, learner-driven solutions that can be integrated into real VET practices.

1.4. BENEFITS OF EDUCKATHONS IN THE VET SECTOR

EDUckathons bring multiple, interrelated benefits to the Vocational Education and Training (VET) sector. They do not simply introduce a new teaching format but foster a comprehensive shift in mindset—from traditional instruction to creative collaboration, inclusivity, and real-world innovation. Their benefits extend across learners, educators, and institutions, creating a ripple effect of transformation throughout the VET ecosystem.

At the learner level, EDUckathons make education more engaging and relevant. They provide opportunities to apply knowledge to authentic problems, encouraging learners to think critically and creatively. Instead of passively absorbing information, learners take an active role in co-creating their learning experience, which leads to stronger motivation, deeper understanding, and greater retention.

At the educator level, they offer a structured approach to innovation through design thinking, allowing teachers and trainers to experiment with new methodologies, reimagine curricula, and test novel ideas in a safe and collaborative environment. This supports continuous professional development and helps educators evolve from content deliverers to designers of learning experiences.

At the institutional level, EDUckathons cultivate a culture of innovation and inclusion. They bring together managers, trainers, learners, and stakeholders to collaborate, exchange perspectives, and design solutions that respond directly to the needs of industry and society. This collective process strengthens partnerships, encourages agility, and aligns VET provision with the demands of a rapidly changing labour market.

The benefits of EDUckathons are therefore systemic and cumulative, building upon one another to create a more dynamic, learner-centred, and future-ready VET sector. Specifically, EDUckathons help to:

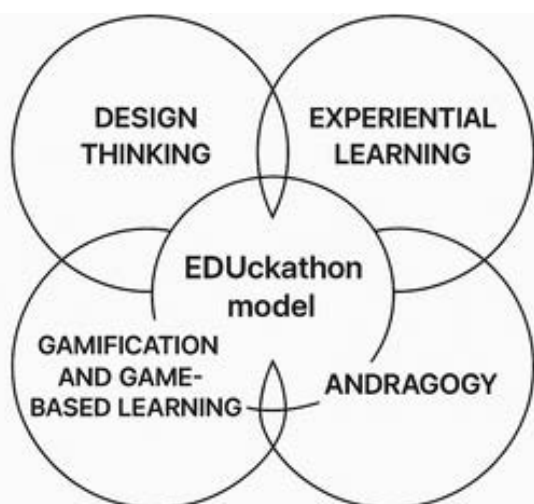
- **Bridge skills mismatches and learning gaps:** EDUckathons connect educational activities with real market needs, ensuring that learning outcomes are relevant and transferable to the workplace. Participants engage with authentic industry or community challenges, developing solutions that align training with employability and innovation.
- **Encourage creativity and innovation:** By applying the design thinking process—empathize, define, ideate, prototype, and test—EDUckathons provide a structured yet flexible environment for creative exploration. Educators and learners alike are encouraged to experiment, take risks, and explore new possibilities for teaching and learning.
- **Increase engagement and motivation:** The participatory nature of EDUckathons energizes the learning environment. Learners feel empowered to contribute meaningfully, while educators rediscover purpose through creative co-design. This engagement leads to more active participation, stronger learning outcomes, and a shared sense of achievement.
- **Drive institutional and systemic transformation:** When adopted regularly, EDUckathons become catalysts for organizational change. They embed innovation, collaboration, and inclusion into institutional culture, aligning VET programs with digital transformation, sustainability, and lifelong learning priorities. Institutions that embrace this model become more agile, forward-thinking, and better prepared to meet evolving educational and market challenges.

2. CONCEPTUAL FRAMEWORK

The EDUckathon model is not just a method - it is a convergence of multiple educational philosophies and frameworks that have proven effective in creating dynamic, relevant, and transformative learning experiences.

As such, the EDUckathon model integrates multiple educational approaches, including experiential learning, andragogy, and game-based learning. Experiential learning, as explored by [O'Bannon \(2008\)](#), emphasizes non-traditional, practical learning experiences for adults. Andragogy, a key pillar of adult learning theory ([Merriam, 2001](#)), focuses on self-directed and transformative education ([Halupa, 2015](#)). The model also incorporates elements of game-based learning, which has been shown to enhance cognitive skills, decision-making, and social relationships in adult education contexts ([Filatro & Garcia, 2021](#)). These approaches collectively support the development of dynamic, relevant, and transformative learning experiences. The integration of pedagogical, andragogical, and heutagogical principles ([Halupa, 2015](#)) allows for a flexible approach that can adapt to various learning contexts and individual needs. This multifaceted foundation ensures that the EDUckathon model is both innovative and pedagogically sound, making it suitable for diverse vocational education and training settings.

To fully understand and apply EDUckathons, it is important to explore the theoretical foundations that support this approach. This section introduces the four pillars that shape the EDUckathon methodology: **Design Thinking, Experiential Learning, Gamification and Game-Based Learning, and Andragogy.**



EDUckathon model, source: Acceleras



Source: Canva

Each concept enriches EDUckathons in unique ways—bringing structure, promoting active participation, enhancing motivation, and aligning with adult learning principles. These conceptual elements equip organizers and facilitators with a deeper understanding of why EDUckathons work—and how to design and implement them to maximize impact for both educators and learners.

2.1 DESIGN THINKING AND ITS RELEVANCE TO EDUCKATHONS

Design Thinking is a creative method for solving complex problems by focusing on the needs of people. It follows clear steps such as understanding the problem, thinking of ideas, building simple models (prototypes), and testing them. This method fits well with EDUckathons, because participants also follow these steps when working on real challenges during the event. Design Thinking helps them stay focused, work together and come up with useful results.

EDUckathons follow the five phases of the Design Thinking methodology, as shown in the illustration. Empathize, Define, Ideate, Prototype and Test. Each phase builds on the previous one, helping teams better understand user needs and develop solutions that are practical, innovative, and effective within vocational education contexts.



The Five Phases of Design Thinking, source: adapted from VETdesign, 2024, p. 3

1. Empathize: The goal of this phase is to understand the users' needs, challenges and emotions. Participants talk to users, observe their environments and gather insights through interviews or activities like empathy maps and journey maps. In VET, this means engaging with learners, educators or industry partners to learn what really matters to them.

"The ultimate aim is to build a comprehensive understanding of the user's environment and motivations" (Design Thinking Manual, p. 4).

2. Define: In the Define phase, the team summarizes the findings from the Empathize phase and writes a clear and focused problem statement. This helps guide the idea generation process. The outcome is often a "How Might We" question that invites creative thinking.

"This stage aims to frame the problem in a way that is user-centered, inspiring, and focused on identifying opportunities for innovation" (Design Thinking Manual, p. 5).

3. Ideate: During Ideate, they brainstorm as many ideas as possible using methods like brainwriting or mind mapping, encouraging creativity before choosing the most promising directions.

"This phase emphasizes divergent thinking to encourage creativity and challenge assumptions" (Design Thinking Manual, p. 6).

4. Prototype: In this hands-on phase, participants create simple models or simulations of their ideas. These can be physical objects, digital mockups, or storyboards. The goal is to explore what the solution could look like and how it might work.

"This phase focuses on translating abstract concepts into physical or digital forms" (Design Thinking Manual, p. 7).

5. Test: Finally, the prototypes are tested with users to gather feedback. This helps improve the solution and check if it meets users' needs. In VET, testing might involve trying out a learning activity or tool in a classroom or training setting.

"The Test step delivers a solution that has been improved based on stakeholder feedback" (Design Thinking Manual, p. 8).

Facilitators in EDUckathons can enhance the learning process by actively supporting the transition between divergent phases (like Ideation) and convergent phases (like Prototyping). Managing this creative flow helps ensure that teams stay focused but also explore innovative paths fully.

The EDUckathon format is used in the **VETdesign project**, which is part of the Erasmus+ KA220-VET programme (2024–2026). This project aims to modernize vocational education and training (VET) by making it more flexible, creative, and aligned with real labour market needs. As part of this work, the **Design Thinking Manual** was created, a detailed resource that provides tools, templates and workshop structures for applying Design Thinking in VET contexts. This manual complements the EDUckathon format by offering practical support for planning and running learner-centered innovation activities.

You can download the manual here:

 *Design Thinking Manual Link



VET providers ensure that learning is not only theoretical but directly connected to real-world problem-solving by using the Design Thinking method in EDUckathons; helping learners build the skills and mindsets needed for the future of work.



Source: Canva

Case study of using Design Thinking in an Educational Hackathon

In celebration of Finland's 100th anniversary, **Marimekko** hosted a **Design Hackathon** during Helsinki Design Week. Fifty-one young designers were invited to explore the integration of augmented and virtual reality in textile design.

The event emphasised Design Thinking principles, encouraging participants to empathise with users, define problems, ideate, prototype, and test solutions within a collaborative environment. **The top five teams presented their concepts to international investors and startups**, showcasing innovative approaches to **combining traditional textile methods with modern technology** (Helsinki Design Weekly, 2017).

2.2 EXPERIENTIAL LEARNING

WHAT IS EXPERIENTIAL LEARNING?

Experiential learning is a teaching method where students “learn by doing.” Instead of only listening to lectures or reading texts, students are actively involved in real activities. These experiences help them understand the subject more deeply and see how it connects to real life. Experiential learning focuses on building important skills like problem-solving and critical thinking, rather than just memorizing information. It is seen as meaningful because it feels important and useful to the learner (Northern Illinois University, 2025).

Experiential learning process usually follows three key steps:

(Northern Illinois University, 2025).



Students take part in an activity



They reflect on what happened and how they felt about it



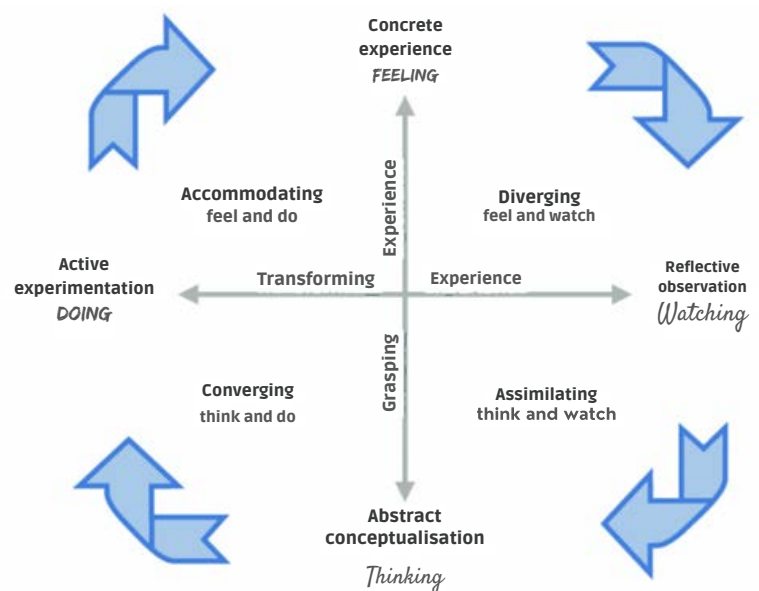
They apply what they have learned to new situations or future tasks

Experiential learning is connected to approaches in vocational education and training (VET). In “real-world” environments, learners must be able to adapt, reflect and apply their skills flexibly. VET programs can prepare students by using experiential methods for dynamic workplaces, where lifelong learning and adaptability are crucial.

The VETdesign project promotes active, learner-centered methods that naturally align with experiential learning principles. Through the EDUckathon format, participants are encouraged to engage directly with real challenges, reflect on their actions and apply new knowledge in practice. This ensures that learning is not only theoretical but becomes a meaningful and practical experience for all participants.

In EDUckathons, experiential learning should be intentionally designed into every phase. Organizers can plan short reflection moments after major activities (e.g., after Ideation or Prototyping) to strengthen the learning cycle. This structured reflection not only deepens understanding but also increases participants’ ability to transfer their learning into real-world contexts.

 **Kolb’s Learning Cycle** is a model that explains experiential learning and how people learn through experience. It was developed by David A. Kolb in 1984 and is still widely used in education today. The model includes four stages that work together in a cycle: Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation. Learning is considered most effective when individuals move through all four stages, combining action, reflection, thinking, and application (Main, 2022).



Kolb’s Experiential Learning Cycle, source: Educational Technology, 2020

KOLB'S FOUR-STAGE LEARNING CYCLE:

1. Concrete Experience: This is the first stage of the cycle. It involves *learning through direct personal experience*. At this point, the learner takes part in a real situation, often involving others. Instead of using a fixed plan, the learner reacts openly and adapts to what is happening. This stage is based more on feelings and flexibility than on logic or structure (Main, 2022).

2. Reflective Observation: In this stage, the learner looks back at the experience and tries to understand it. They reflect on what happened and *think about it from different perspectives*. This step requires being patient and observing carefully before making conclusions. Learners form ideas based on their thoughts and emotional reactions (Main, 2022).

3. Abstract Conceptualization: This stage focuses on thinking and creating theories. Here, learners use logic and *planning to make sense of their experience*. They *build new ideas and concepts* that help explain what happened. Instead of relying on emotions, learners focus on structure, rules and problem-solving strategies (Main, 2022).

4. Active Experimentation: In the final stage, learners try out their new ideas in “real life”. They apply what they have learned to *test new approaches or solutions*. This stage is practical and focused on action. Learners move beyond just thinking and start doing, using their experience to guide future tasks or challenges (Main, 2022).

HOW EDUCKATHONS ALIGN WITH KOLB'S CYCLE

Facilitators organizing EDUckathons can intentionally design activities that support each of Kolb's stages.

For example, the Prototyping phase can be structured as a Concrete Experience; Reflection Workshops can encourage Reflective Observation; Ideation Sessions can promote Abstract Conceptualization, and Final Presentations can support Active Experimentation. Ensuring that teams move through all four stages can make the learning experience deeper, more lasting and more transferable.



Source: Canva

In her study about learning through hackathons, Lionaite (2020) shows that participants often **go through similar processes even without formal guidance**. Participants reported "real hands-on experiences", "reflection during and after activities" and "applying new knowledge in future contexts" (Lionaite, 2020, pp. 10, 38, 58). These elements closely match the stages of Kolb's learning cycle and highlight the natural alignment between hackathons and experiential learning theories.

So, EDUckathons were not originally designed based explicitly on Kolb's model, they **still naturally fit the cycle's structure**. Organizers can further strengthen experiential learning outcomes by aligning activities with Kolb's stages. This approach supports participants in transforming project experiences into real, transferable skills, which is an essential competence for modern vocational education and training.

Case study of using Experiential learning in an Educational Hackathon

A **24-hour field study tour** across Austria, Italy, and Slovenia was transformed into a **virtual hackathon** due to the pandemic. Undergraduate students engaged in immersive, real-world problem-solving activities, enhancing their intercultural competencies and collaborative skills. **The hackathon format provided an experiential learning environment**, allowing students to apply theoretical knowledge to practical challenges in a cross-cultural context (Buko Knappitsch, 2020).

2.3 GAMIFICATION AND GAME-BASED LEARNING

Gamification and game-based learning (GBL) are two innovative methods used in modern education. Although often discussed together, they refer to different approaches.



Gamification means **adding elements typically found in games**, such as points, badges, or leaderboards, to non-game settings like classrooms or training environments. The aim is to increase engagement, motivation, and participation without necessarily using a full game (Qasim et al., 2024, p. 23).



Game-based learning (GBL) on the other hand, involves **using actual games that are designed with clear educational objectives**. Students learn by actively playing, experimenting and solving problems within the game environment (Qasim et al., 2024, p. 23).

Both methods have proven benefits. Research shows that **gamification and GBL can enhance learner motivation, deepen engagement, and improve academic performance**. These approaches are **especially effective for learners who might struggle with traditional, lecture-based teaching**. Features like challenges, immediate feedback, and storytelling create more interactive and meaningful learning environments (Qasim et al., 2024, pp. 23–24).

Game-based learning also supports the development of important competencies such as critical thinking, teamwork and problem-solving skills. Furthermore, it aligns with active learning principles, helping students to better remember and apply what they have learned by participating rather than passively observing (Qasim et al., 2024, pp. 24–25).

HOW EDUCKATHONS REFLECT GAMIFICATION AND GAME-BASED LEARNING PRINCIPLES

Although EDUckathons are not designed as games, they share several important features with both gamification and game-based learning. According to EdForGood (2025), EDUckathons are team-based events where participants work on real social or environmental challenges using the Design Thinking method (Qasim et al., 2024, pp. 23–25).

Even though EDUckathons do not typically use formal game elements such as points, badges or leaderboards, they still create a similar motivational structure. Participants work together to solve meaningful challenges, engage in creative thinking and operate within a supportive environment that values testing, feedback and improvement (Qasim et al., 2024, pp. 24–25).



Source: Canva

In her research, Lionaite (2020) describes that hackathons often promote high levels of learner engagement, strong team collaboration and learning through iterative feedback cycles. These characteristics mirror the key benefits traditionally associated with gamification and game-based learning (Lionaite, 2020, p. 42).

The EDUckathon format, which is supported and promoted by the VETdesign project, naturally creates a learning environment that includes many strong elements of gamification and game-based learning. They focus on motivation and active participation, which keeps learners engaged and helps them develop practical skills for real-world jobs. This approach makes EDUckathons an effective way to prepare learners for the demands of today's changing work environments.

Organizers of EDUckathons could make the events even better by adding small gamification elements, such as giving badges for creativity, teamwork, or reaching important goals. This would help keep participants motivated from inside, without making the event too competitive. It would also help them stay focused on working and learning together – all while keeping it fun.



Case study of using Gamification in an Educational Hackathon

The "Gamification As Method for Education" (G.A.M.E.) project gathered youth leaders from across Europe to explore gamification in education. Participants engaged in workshops to understand gamification principles and **collaborated to design educational games aimed at promoting core values and skills development among young people**. The project demonstrated how gamified approaches can enhance engagement and learning outcomes in educational settings (CEFIG, 2024).

2.4 ANDRAGOGIC PRINCIPLES IN EDUCKATHONS

ANDRAGOGIC PRINCIPLES

Andragogy is a theory of adult learning that focuses on the specific characteristics, needs, and motivations of adult learners. First introduced by Malcolm Knowles in the late 1960s, andragogy is based on the idea that adults learn differently from children and that education should respect and build upon these differences. Knowles identified six core assumptions about adult learners that guide how learning activities should be designed (St. Clair, 2024, pp. 7–8).



The six assumptions of andragogy are:

1. Adults need to understand the reason for learning something before engaging in it.
2. They value autonomy and want control over their own learning.
3. Their life and work experiences are key learning resources.
4. They're ready to learn when faced with real-life challenges.
5. They prefer learning that helps solve practical problems.
6. Internal motivators—like personal growth and self-esteem—drive them more than external rewards (St. Clair, 2024, pp. 7–8).



The Five Phases of Design Thinking, source: adapted from VETdesign, 2024, p. 79

These six assumptions form the foundation of andragogical practice. The EDUckathon format naturally reflects many of these andragogical principles. As a learner-centered method, EDUckathons offer adult participants the opportunity to take ownership of their learning, draw on their personal and professional experiences and engage with challenges that are directly connected to real-world problems. Instead of focusing on passive information delivery, EDUckathons emphasize active participation, collaboration, critical thinking and problem-solving, all of which match the needs and preferences of adult learners.

By focusing on real-life challenges and encouraging learners to take responsibility for their own learning, EDUckathons reflect the core ideas of andragogy. Participants are motivated not only by external goals but also by the personal satisfaction of solving real problems, working with others, and bringing their ideas to life.

Case study of using Andragogic principles in an Educational Hackathon

The **DigiEduHack event in Italy** focused on adult education, aligning with andragogical principles that emphasize self-directed learning and practical application. Adult learners collaborated **to develop digital solutions for educational challenges, leveraging their experiences and motivations**. The hackathon provided a platform for adults to engage in problem-solving, reflecting the core tenets of andragogy (Valentini, 2022).

The following sections explain how four important principles of andragogy (self-directed learning, the role of experience, motivation & readiness to learn and active learning) are applied within the EDUckathon model.

1) Self-Directed Learning

One of the central ideas of andragogy is that adults see themselves as responsible for their own learning. They want to make their own choices and take part in shaping their learning path (St. Clair, 2024, p. 8). In EDUckathons, participants are not given step-by-step instructions. Instead, they can decide how to approach the challenge, how to organize their teams and how to develop their ideas.

This freedom builds their sense of ownership and motivation. It also prepares them for real work situations, where making independent decisions is very important.

Facilitators can support self-directed learning by offering flexible tools and open questions, instead of strict rules. This way, participants stay in control of their learning.



Source: Canva

2) Learner Experience

According to andragogical theory, adults bring a rich background of personal and professional experience into the learning situation. These experiences are a valuable resource for learning (St. Clair, 2024, p. 8). In EDUckathons, teams are made up of participants with different roles and backgrounds, such as educators, designers, developers or students. Their different skills and perspectives make the projects richer and more creative.

Sharing experiences helps learners connect ideas, solve problems, and learn from each other in a natural way.

Organizers can strengthen this by planning team activities that invite participants to share personal stories or past experiences, especially at the start of the event



Source: Canva

3) Motivation and Readiness to Learn

One of the core assumptions of andragogy is that adults are mostly motivated by internal factors. While some external reasons, such as better jobs or higher salaries, may play a role, the strongest motivators are internal: job satisfaction, personal growth, self-esteem and an improved quality of life (St. Clair, 2024, p. 8). EDUckathons support this kind of motivation by giving participants real challenges to solve, often with social or environmental value. Participants feel their work matters, which increases their interest and commitment.

It is important to choose challenges that are meaningful and relevant to the participants' interests or professions to keep their motivation high.



Source: Canva



Source: Canva

4) Active Learning

Another key principle in andragogy is that adults prefer to learn by doing, not just by listening or reading (St. Clair, 2024, p. 8).

EDUckathons follow this naturally. Participants are actively involved in brainstorming, building prototypes, testing ideas, and presenting solutions. This hands-on approach helps them remember and apply what they have learned much better than traditional classroom teaching.

Facilitators can make active learning even stronger by including regular short feedback sessions after each activity phase. This helps participants reflect and adjust their work while staying engaged.

CONCLUSION

The different theories presented in this chapter all focus on making education more active, practical and learner-centered. Together, they form a strong conceptual foundation for EDUckathons, showing why this format can be an effective tool for vocational education and training (VET).



Design Thinking introduces a structured, creative approach to solving real-world problems. It moves learners through phases of empathy, problem definition, idea generation, prototyping and testing. This method not only encourages innovative thinking but also places the user's needs at the center of every solution. In EDUckathons, these Design Thinking steps give participants a clear process to follow, helping them stay focused, collaborate efficiently and develop meaningful, practical outcomes.



Experiential learning, as explained in that chapter, emphasizes the importance of learning through direct action and reflection. It moves beyond traditional lecture-based education by actively involving learners in real tasks. **Kolb's Four-Stage Learning Cycle** (Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation) provides a clear framework for understanding how experiential learning works. In EDUckathons, participants naturally move through these stages by engaging with challenges, reflecting on their ideas, developing concepts and testing their solutions in real or simulated environments. This process supports deep understanding and helps learners transfer new skills into real-world contexts.



Gamification and game-based learning (GBL) can add a motivational layer to the learning process by using elements such as challenges, feedback, collaboration and rewards. These gamification strategies make learning more interactive and engaging. Even though EDUckathons do not fully implement formal gamification features like points or leaderboards, they still incorporate many motivational elements by setting clear goals, encouraging teamwork and providing space for creative exploration. Research shows that this type of environment increases learner motivation, engagement, and the development of important skills like critical thinking and problem-solving- outcomes that are essential for success in today's work environments.



Andragogy focuses specifically on how adults learn best. It highlights that adult learners are independent, bring rich personal and professional experiences to learning and are motivated by internal factors like personal growth or real-life relevance. EDUckathons fit these principles closely by giving participants control over their work, recognizing the value of their experiences and connecting challenges to real-world problems that matter to them. This ensures that adult learners are not only engaged but also feel respected and empowered during the learning process.

EDUckathons offer a unique model by blending design thinking, experiential learning, gamification, and andragogy. This mix ensures structure, action, motivation, and respect for adult learners. The result is a powerful approach for modern VET, building both technical and soft skills like collaboration and problem-solving. Grounded in strong theory, EDUckathons prepare learners for evolving job markets, lifelong learning, and personal growth.

The educational theories discussed in this chapter offer strong guidance for making EDUckathons even more effective. Concepts like Design Thinking, experiential learning, gamification and andragogy support active, learner-centered and real-world learning experiences. Organizers can create powerful learning environments that better support adult learners and prepare participants for success in today's fast-changing vocational education and training sector by aligning EDUckathon activities more closely with these principles.



Source: Canva

3. DESIGNING THE EDUCKATHON

Typically, EDUckathons can be organized by one or more vocational schools, which may collaborate to include students from different institutions. Students form small teams to work together on practical challenges. Each team is supported by a facilitator, who in this context is assumed to be a vocational school teacher. These teachers do not lecture but instead guide the teams, encourage participation, and help students reflect on their work and progress. Other roles may include organizers (who handle logistics and planning), mentors (who provide subject-matter expertise), and possibly industry experts or stakeholders who offer real-world perspectives and feedback (Affia-Jomants et al., 2020, p. 22).

EDUckathons take place in various settings. Common venues include classrooms, school workshops, innovation labs, or community centers for face-to-face events. Alternatively, EDUckathons can be run online using digital platforms, or as hybrid events that combine both physical and virtual participation to increase accessibility.



Source: Canva

3.1 SCOPE AND DURATION

DURATION

The duration of an EDUckathon is adaptable to fit the needs of the school and the complexity of the challenge. The event can be short, such as a focused session lasting 2–3 hours, or it can take place over a full school day. The choice depends on the learning objectives, the number of participants, and the depth of the challenge. Organizers should plan the schedule to allow enough time for team activities, group discussions, and feedback, while keeping participants engaged and motivated throughout the event.

CONTENT SCOPE AND LEARNING PROCESS

There are many valid ways to approach the design of an EDUckathon. The flexibility of this format is one of its strengths. What matters most is to **clearly define the learning approach** before building the structure of the event. Experiential Learning, Design Thinking, Gamification, Andragogy, each of them can be used individually or in combination and organisers should choose what best matches their learners' needs and the expected outcomes.

It is useful to use Kolb's experiential learning cycle. The process begins with a **concrete experience**, where students actively engage in a real or simulated situation. Next, students move to **reflective observation**, where they discuss and analyze their recent experience as a group. In the **abstract conceptualization** phase, teams use their reflections to develop new ideas or solutions. Finally, during **active experimentation**, students test these new ideas in practice, applying what they have learned to real-world or simulated tasks.

This approach ensures learning is hands-on, practical, and directly linked to relevant skills. Gamification and design thinking can be present throughout to boost engagement and creativity.

3.2 THEMES AND CHALLENGES

HOW TO DEFINE RELEVANT (EDUCATIONAL OR TRAINING OR WORK) CHALLENGES FOR THE VET SECTOR

To define relevant challenges for VET students - especially in the context of EDUckathons - we need to focus on real, practical problems that students can tackle in a short, intense period of learning. EDUckathons are a powerful method for upskilling and reskilling because they combine teamwork, creativity, and problem-solving under time pressure. This format works best when the challenges are connected to the students' vocational fields and reflect situations they might face in real workplaces. (Schlögl et al., 2018, p. 6).

ICT and mechanical fields,



A typical challenge might involve helping a school or training company update its digital tools or systems. Students could be asked to develop a simple prototype, automate a small task, or design a basic digital support tool. These tasks are practical, motivating, and directly tied to modern workplace needs.

Construction, agriculture, or automotive sectors



Students might work on challenges related to energy efficiency or waste reduction. They could design a simple green improvement, plan how to reuse materials, or suggest changes to everyday routines that reduce environmental impact.

Care, education, or hospitality



Challenges could focus on making services more inclusive. Students could design welcoming materials for newcomers, find better ways to support people with special needs, or develop creative ways to improve communication in diverse teams.

Business and logistics



A challenge might involve improving how information flows, how goods are tracked, or how customers are served. Students could redesign a small part of a process, test new communication tools, or come up with ideas to make services more efficient and user-friendly.

Craft fields



Such as carpentry, plumbing, metalwork or tailoring - challenges can center around combining traditional skills with modern needs. For instance, students might redesign a product using sustainable materials, improve the functionality of a handmade item, or develop a repair solution.

The challenges should be concrete, manageable, and meaningful - something students can understand quickly and work on actively using their technical skills, personal experience, and ideas. EDUckathons respond directly to the problem of low student motivation in school-based VET systems and the weak connection between vocational training and company practice. (Brevik & Kaiser, 2023, p. 5). By introducing real, practical challenges - often developed with input from industry - EDUckathons make learning feel relevant and immediate.



Source: Canva

EDUckathons should allow students to be active problem-solvers and to gain not just technical skills, but also experience in teamwork, critical thinking, and presenting their ideas. When designed well it should stretch students' thinking, expose them to new tools or methods, and build confidence for future learning and work.

3.3 INTEGRATING EXPERIENTIAL LEARNING AND GAME-BASED LEARNING AND GAMIFICATION

Within experiential learning, a concrete experience should begin with a clear, practical task that gets participants working right away. In EDUckathons, this means giving learners a practical challenge from their vocational field that they can understand quickly and begin solving as a team. The goal is to do first, think later. No long explanations - just a short introduction, simple tools, and a task that feels real and useful.

This phase can also include elements from Design Thinking, especially the empathize and define steps, where participants explore user needs and reframe the problem before building a solution.

To enhance engagement and motivation during the Concrete Experience phase of an EDUckathon, organizers can implement simple yet effective elements of gamification and game-based learning. (Vanhée et al., 2024) These strategies bring energy, structure, and an element of fun to the learning process. They are especially important at the start, when learners are just at the beginning of their challenge.



Possible ways how to implement Gamification in the Concrete Experience Phase:



Source: Canva

01

Progress Tracking Boards – Visual boards or digital dashboards to show milestones and team progress.

02

Achievement Badges – Simple rewards for milestones to boost motivation.

03

Additional Hints or Tools – Providing teams with “hint cards” or additional resources as they hit milestones, adding an additional layer of strategy.

04

Time Challenges – Quick, timed tasks to build momentum and excitement, especially useful for short hackathon sessions.

05

Team Roles – Assigning team roles like “Visionary” or “Resource Keeper” or „Team organiser“ to keep collaboration balanced and fun.

DESIGNING ACTIVITIES FOR CONCRETE EXPERIENCE

These activities examples show how Concrete Experience can be applied quickly and effectively. For short EDUckathons (under one day), it is best to focus on action. In longer formats, however, introducing user research, and problem definition (key to Design Thinking) can deepen the learning and lead to stronger, more user-centred solutions. (Brevik & Kaiser, 2023).

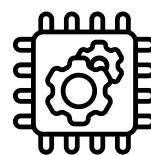
For instance, in the fields below, students could be asked to:

“

„Think of a tool or measuring device that could help workers do their job more easily in the workshop. Who would use it? What problem does it solve? Plan it out and then build a simple version using leftover materials.“

”

Mechanical Field (e.g., mechanics, mechatronics)



Care Professions:



“

„Think of something you could make to help an older person in their daily life (like remembering what to do, staying safe, or feeling comfortable). Who will use it? How will it help? Plan it out and then make a first version with pictures or materials.“

”

“

„Imagine you have a new product that you want to sell in a small shop—like a reusable water bottle, a handmade candle, or a local snack. First, think about what makes it a good product (like who might want it and why). Then, think about how to promote it in the shop—how to make it stand out and get people interested (like a special display, sign, or sample table). Make a sketch of your idea and, if you can, build a small model of your display“

”

Business & Retail:



Craft Fields (e.g., woodworking, sewing, metalwork):



“

„Think of something small and useful you could make from leftover materials (like a stand, hook, or box). Who might use it? How would it make their life easier? Plan your idea first and then build it using scrap pieces.“

”

INCORPORATING REFLECTION SESSIONS (REFLECTIVE OBSERVATION)

After students have completed the first Concrete Experience step, the next comes Reflective Observation. This reflection helps students look back at what they did, see what worked (or didn't), and start turning their experiences into real learning. (Wijnen-Meijer et al., 2022).

In an EDUckathon, this step can look like a short but focused reflection session. For example:

Students sit together in their teams and discuss what they just did: What went well? What was tricky? How did their team work together? They might write short notes or draw quick diagrams about what they saw and felt. (School Lipnice Handout, 2018, p. 16)

A teacher or facilitator can guide the reflection by asking open questions like:

"What surprised you about this activity?"

"What would you change if you had to do it again?"

"How did your idea help (or not help) the person you imagined using it?"

"What skills did you need for this?"

This simple debrief can be done in 15–20 minutes and helps students see their actions more clearly and learn from them.



Except from that it might be also useful:

- Show short video clips or photos of their work and ask them to talk about what they notice.
- Let them compare their solution with others - for example, by walking around and seeing other teams' prototypes or plans.
- Have them rate their own work on a few points: how useful it was, how well they worked together, or how creative their solution was.

The reflection is most useful when it includes:

A safe space for honest sharing (no judgment—just learning).

A focus on both what happened and why it happened.

A chance to connect what they did to future improvements—"What will you do next time?"

This reflection stage is not about judging. It's about helping students see their own learning process. It builds a bridge between the fun of "doing" and the deeper "thinking" needed to improve next time. (School Lipnice Handout, 2018)

ENCOURAGING ABSTRACT CONCEPTUALIZATION (LESSONS LEARNED)

After students have done the work (Concrete Experience) and made a reflection (Reflective Observation), the next step is to help them make sense of it by drawing out patterns, lessons, and principles. Students begin to turn their experience and reflections into broader lessons or principles. It's the moment they ask:

- “What did we learn?”
- “Why did it work (or not work)?”
- “How can we use this knowledge elsewhere?”



This step transforms an activity and its experience into a deeper understanding.

In the EDUckathon setting, this phase can be implemented through guided activities that help teams identify lessons from their project and connect them to bigger ideas, such as workplace practices, technical concepts, or social skills.(Passarelli & Kolb, 2012).



Source: Canva

Practical strategies:



Students write down or discuss key lessons, such as what helped their solution succeed or how teamwork affected their result.



Students create a “lessons learned” poster or slide, identifying what skills or methods worked well.



Students answer guiding questions, like:

- “What skills did you develop?”
- “How does this apply to your future job?”
- “What would you do differently next time?”

These questions help connect their project to real-world knowledge.

FACILITATING **ACTIVE EXPERIMENTATION** (APPLYING KNOWLEDGE)

At the last stage, students take what they've learned at the previous steps and **try applying it in a new or improved way**. It's where ideas are tested, plans are made, and learning becomes action.

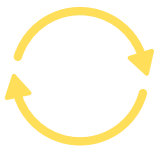
This phase matches the "Test" and "Implement" stages of the Design Thinking process, where learners apply their solution in real or simulated contexts and adjust based on feedback. Both models emphasise learning through trying something again with a new mindset.

Practical ways to implement this phase:



Ideas Improvement

After reflecting, teams get time to improve or adapt their original idea. For example, a mechanical team improves their tool design by simplifying it and choosing better materials.



Applying to a New Situation

Students use what they learned on a slightly different challenge. For example, a business team that made a product display for teens now adapts it for senior customers, adjusting layout and messaging.



Plan for Real-World Use

Students write or present how they would use their idea in a workplace or internship. For example, health care students explain how their visual daily planner could be used with real clients and what changes might be needed.



Source: Canva

These activities help to move from isolated experience to transferable knowledge and real-world application. It also reinforces the idea that learning is not just about getting it right once - but about continuing to test, adapt, and grow. At the same time it teaches them understand that failure is part of learning, and the key is to keep applying and improving.

AN OUTLINE OF AN ACTIVITY/WORKSHOP

 **Date:**

 **Time:** 9:00 AM - 16:00 PM

 **Location:**

PRESENTERS

- ☒
- ☒
- ☒

AGENDA	TIME	NOTES
WELCOME AND INTRODUCTIONS - Outline objectives, rules, and expected outcomes - Icebreaker energiser to build team trust	09:00 – 09:15	
TEAM FORMATION & CHALLENGE BRIEFING - Dividing students into small teams (4-5 per team) - Presenting the practical vocational challenge - Quick Q&A to ensure clarity	09:15 – 09:45	
DESIGN & PROTOTYPING (CONCRETE EXPERIENCE) - Teams first define user needs and reframe the problem, then they actively design and build solution prototypes - Facilitators guide without lecturing	09:45 – 11:00	Gamification: introduce team roles, progress boards, hint cards, and time challenges to boost engagement)
BREAK	11:15 – 11:45	
REFLECTION SESSION (REFLECTIVE OBSERVATION) - Teams discuss their experience - Guided questions by facilitator: “What went well?”; “What would you change?”; “How did teamwork help/hinder?” - Optional: quick gallery walk to see other teams’ solutions	11:45 – 12:15	
ABSTRACT CONCEPTUALISATION - Each team identifies key lessons learned - Create a “lessons learned” poster or slide: - What skills/methods worked? How does this relate to real workplace practice?	12:15 – 14:15	
LUNCH	14:15 – 14:30	
ACTIVE EXPERIMENTATION / IMPROVEMENT PHASE - Teams refine their solution based on reflections and adapt it for a user context - Facilitators encourage testing assumptions and creativity	13:00 – 14:15	Gamification: hint cards or time challenge to build momentum
FINAL PREPARATION FOR PRESENTATIONS Teams finalise solution pitch, prototypes, and visuals	14:15 – 14:30	
TEAM PRESENTATIONS & FEEDBACK - Each team presents their solution (5 mins per team) - Peer and facilitator feedback using guided positive critique: “One strength, one improvement suggestion”	14:30 – 15:30	
FINAL REFLECTION & CLOSING - Group reflection: Key takeaways for future learning/work and personal insights and feelings about the day - Achievement badges distribution - Closing remarks and next steps if applicable	15:30 – 16:00	

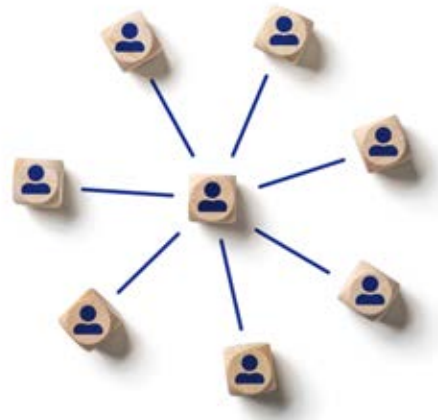
4. ROLES AND RESPONSIBILITIES

There are a couple of different roles that need to be fulfilled to prepare and implement a successful EDUckathon. The success of an EDUckathon depends on the clear understanding and stringent execution of these roles, from the overall planning by organizers to the active engagement of participants and the invaluable insights provided by industry experts.

In the following paragraphs we will look closer into the different roles connected with an EDUckathon and their responsibilities. Depending on the size and environment of the EDUckathons, persons could take on different roles at the same time.

4.1 ORGANIZERS

Organizers are the architects of an EDUckathon, responsible for the overall vision, planning, and execution of the event. Their role is multifaceted, encompassing strategic, logistical, and promotional aspects to ensure a successful and impactful experience for all participants. They are the driving force behind transforming the concept of an EDUckathon into a tangible and enriching learning opportunity.



Source: Canva

Their key responsibilities include:



Definition of goals

Organizers define the core objectives and themes of the EDUckathon, aligning them with the broader educational goals of the participants. This includes determining the desired learning outcomes and the specific challenges or topics to be addressed. They ensure the EDUckathon's purpose is clear and contributes to upskilling and reskilling in relevant areas.



Resource planning and management

This involves securing funding, identifying and booking a suitable venue, and managing the overall budget. Organizers are responsible for allocating resources effectively to support all aspects of the event, from materials and technology to personnel and catering.



Team management

Organizers assemble and manage the core team responsible for the EDUckathon. This includes assigning roles to co-organizers, facilitators, mentors, and other support staff. Effective communication channels are established to ensure seamless collaboration among all team members.



Agenda preparation

While facilitators and mentors contribute to the learning experience, organizers oversee the development of the EDUckathon's structure, schedule, and key learning modules. They ensure the content is relevant, engaging, and conducive to achieving the defined learning outcomes.



Promotion

If the participants are not defined from the onset (for example if the EDUckathon is implemented with the teachers from one school only), organizers need to develop and execute a comprehensive marketing strategy to attract participants. This includes creating promotional materials, leveraging various communication channels, and highlighting the unique benefits of participating in an EDUckathon.



Stakeholder and industry expert engagement

Organizers establish and maintain relationships with key stakeholders, including educational institutions, industry partners, and sponsors. These partnerships are crucial for securing resources, gaining expert insights, and ensuring the long-term sustainability and impact of the EDUckathon.^[1]



Logistics

On the day of the event, organizers manage all operational aspects, including registration, technical setup, participant support, and problem-solving. They ensure a smooth flow of activities and a positive experience for everyone involved.



Evaluation

After the event, organizers are responsible for collecting feedback from participants, facilitators, and mentors. This data is used to evaluate the EDUckathon's success against its objectives and to identify areas for improvement in future iterations. They analyse the impact on learning outcomes and skill development (see chapter 7).

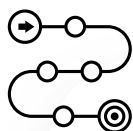
¹ How to organize a hackathon. What I learned while organizing my... | by Tereza Tizkova | Medium. (<https://tereza-tizkova.medium.com/how-to-organize-a-hackathon-58b97c721682>)

4.2 FACILITATORS

Facilitators play a pivotal role in guiding participants through the EDUckathon process, ensuring a productive and engaging learning experience. Unlike mentors who provide expert knowledge, facilitators focus on the process, fostering collaboration, problem-solving, and adherence to the EDUckathon's structure. They are the enablers of active learning and group dynamics.

Facilitators need a profound and comprehensive knowledge of Design Thinking that they can employ.

Their key responsibilities include:



Process Guidance

Facilitators guide participants through each phase of the EDUckathon, from ideation and problem definition to prototyping and presentation. They ensure that participants understand the methodologies (e.g., Design Thinking steps) and keep them on track to achieve their learning objectives within the given timeframe.



Promoting Collaboration and Teamwork

A key responsibility of facilitators is to encourage effective communication and collaboration within teams. They help resolve conflicts, ensure equitable participation, and create an inclusive environment where all voices are heard and valued. They foster a collaborative collective spirit.



Problem-Solving Support (Process-Oriented)

While not providing direct solutions, facilitators help teams overcome roadblocks by asking guiding questions, suggesting alternative approaches, and encouraging critical thinking. They empower participants to find their own solutions rather than providing them directly.^[2]



Time Management

Facilitators help teams manage their time effectively, ensuring they progress through the various stages of the EDUckathon according to the schedule. They provide gentle reminders and help prioritize tasks to meet deadlines.

² LearnServe Virtual Hackathon - Student Facilitator Role Description. (<https://learn-serve.org/assets/2020/04/2020-Hackathon-Facilitator-Role-Description-3.pdf>)



Maintaining Engagement and Motivation

Facilitators are responsible for maintaining a positive atmosphere throughout the event. They motivate participants, celebrate small wins, and adapt activities to keep engagement levels high, especially during intensive work periods.^[3]



Feedback Collection (Process-Oriented)

They gather informal feedback on the EDUckathon process and participant experience, relaying insights to the organizers for continuous improvement. This includes observing group dynamics and identifying common challenges.



Source: Canva

³ How to host a hackathon? - Beeshake. (<https://beeshake.com/en/animer-un-hackathon/>)

4.3 MENTORS

Mentors are subject matter experts who provide guidance, technical assistance, and domain-specific knowledge to participating teams. Their role is to enrich the learning experience by offering practical advice, sharing insights, and helping participants navigate complex challenges related to their projects. Mentors are crucial for bridging the gap between theoretical knowledge and practical application.

Their key responsibilities include:



Expert Guidance and Technical Support

Mentors offer specialized knowledge and technical expertise relevant to the EDUckathon's theme and participants' projects. This can include guidance on specific technologies, design principles, or problem-solving approaches. They help teams refine their ideas and develop feasible solutions.^[4]



Problem-Solving Support (Content-Oriented)

Unlike facilitators who focus on the process, mentors provide direct input on the content of the projects. They help teams troubleshoot technical issues, suggest resources, and offer constructive criticism to improve the quality and viability of their solutions.



Knowledge Transfer

Mentors share their real-world experiences and best practices, providing valuable insights that go beyond what can be learned from textbooks. They act as a source of inspiration and practical wisdom, helping participants develop a deeper understanding of the subject matter.



Encouraging Innovation and Creativity

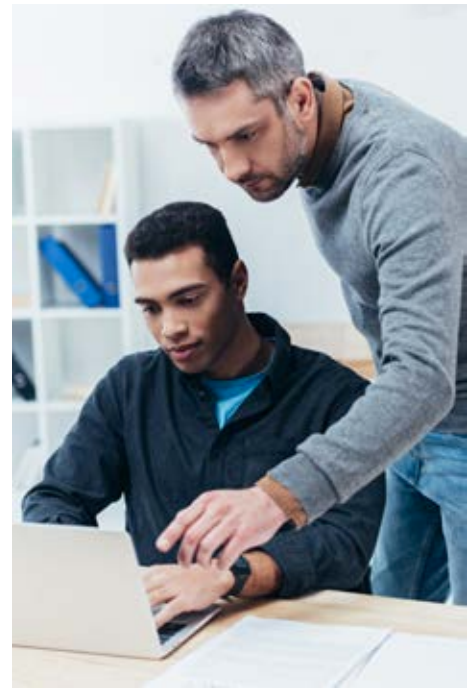
Mentors challenge teams to think creatively and explore innovative solutions. They provide feedback that stimulates new ideas and helps participants push the boundaries of their initial concepts.

⁴ The complete guide to organizing a successful hackathon | HackerEarth. (<https://www.hackerearth.com/community-hackathons/resources/e-books/guide-to-organize-hackathon/>)



Feedback and Evaluation (Project-Oriented)

Mentors provide specific feedback on the progress and quality of the teams' projects. They help evaluate the feasibility, originality, and potential impact of the solutions, contributing to the overall assessment of learning outcomes.



Source: Canva

4.4 PARTICIPANTS (LEARNERS AND EDUCATORS)

The teachers and trainers are the core “customers” of an EDUckathon. They play a double role since they are both the creators and the users of the content that is developed during the event. Participants are actively creating results for their own use (and of course for the use of their colleagues and other stakeholders).

Their commitment, creativity, and willingness to learn are essential for the success of the event and for achieving their personal upskilling and reskilling goals.

Their key responsibilities include:



Active Engagement and Learning

Participants are expected to actively engage in all EDUckathon activities, including workshops, brainstorming sessions, and team collaborations. They should be proactive in seeking knowledge, asking questions, and applying new concepts to their tasks and challenges. The primary output of EDUckathons for participants is learning outcomes.



Collaborative Teamwork

Working effectively within a team is crucial. Participants must contribute constructively to their team's efforts, share ideas, listen to diverse perspectives, and collaborate to achieve common goals. They are encouraged to embrace the collaborative collective spirit of EDUckathons.



Problem-Solving and Innovation

Organizers assemble and manage the core team responsible for the EDUckathon. This includes assigning roles to co-organizers, facilitators, mentors, and other support staff. Effective communication channels are established to ensure seamless collaboration among all team members.



Feedback Integration

Participants should be open to receiving feedback from facilitators, mentors, and peers, and be willing to iterate on their ideas and solutions based on this feedback. This iterative process is key to learning and improvement.



Time Management and Self-Direction

Given the time-bound nature of EDUckathons, participants are responsible for managing their time effectively, prioritizing tasks, and working autonomously within their teams to meet deadlines.



Documentation and Presentation

Participants are typically required to document their progress, solutions, and learning journey. They also present their final projects or prototypes, articulating their ideas, the challenges they faced, and the solutions they developed.



Source: Canva

4.4 INDUSTRY EXPERTS AND STAKEHOLDERS

Industry experts bring real-world relevance and practical insights to EDUckathons. Their involvement ensures that the challenges addressed and the solutions developed are grounded in current industry needs and trends. They provide a vital link between academic learning and professional practice, enriching the experience for all participants.

Their key responsibilities include:



Providing Real-World Context and Challenges

Industry experts can help define relevant and impactful challenges for the EDUckathon, ensuring that the problems tackled are reflective of actual industry needs and opportunities. They can share case studies and practical scenarios that inspire participants.



Sharing Domain-Specific Knowledge

Experts offer deep insights into their respective fields, providing participants with valuable information on industry best practices, emerging technologies, and market demands. This knowledge is crucial for developing solutions that are not only innovative but also viable and relevant.



Inspiring and Motivating Participants

By sharing their experiences and passion for their field, industry experts can inspire and motivate participants, demonstrating the real-world application and impact of the skills they are developing.



Source: Canva

5. PLANNING AND PREPARATION

The success of an EDUckathon lies not only in its creative energy or pedagogical design but in the quality and intentionality of its planning and preparation. Chapter 5 serves as a comprehensive roadmap for organizers to strategically prepare every component before the event takes place. This chapter guides readers through a structured and practical approach to setting up an EDUckathon that is both pedagogically sound and logistically feasible, tailored to the unique needs of the vocational education and training (VET) sector.



Source: Canva

5.1 DEFINING OBJECTIVES AND GOALS

The success of an EDUckathon depends on the clarity and relevance of its objectives. Before addressing logistics or content, organizers must define what the EDUckathon aims to achieve - educationally and organizationally. Clear, measurable goals help ensure the event is purposeful, aligned with pedagogy, and responsive to the needs of the VET (Vocational Education and Training) community (Converse et.al., 2024). EDUckathons promote active, experiential, and problem-based learning. Unlike traditional instruction, they immerse learners in real-world challenges using design thinking. Key objectives should focus on developing competencies like creativity, collaboration, critical thinking, and self-directed learning, while also aligning with VET priorities such as employability, digital skills, and inclusion (Converse et. al., 2024).

Objectives can be considered on three levels (Kong, 2021): individual, group, and institutional. Individuals should gain practical skills - such as applying design thinking or building prototypes. Groups should show improved teamwork and collaborative problem-solving. At the institutional level, goals may include enhancing curricula, building industry partnerships, or testing new teaching approaches. Using the SMART framework—Specific, Measurable, Achievable, Relevant, and Time-bound - helps formulate effective goals. For instance: “By the end of the two-day EDUckathon, each team will present a working prototype to a panel for feedback.” This defines a clear, time-bound outcome tied to hands-on learning.

It's important to align goals with the guide's pedagogical models, including Design Thinking, Experiential Learning, Andragogy or Gamification. For example, following Kolb's learning cycle, objectives should include stages like reflection and iteration, not just task completion. An example might be: "Participants will take part in guided reflection to improve teamwork and refine their solutions." Inclusivity should also guide goal-setting. VET learners often come from varied backgrounds with different confidence levels and experiences. Goals should ensure accessibility and encourage participation in roles suited to each learner's strengths—such as presenting, designing, or prototyping (Oh, 2019).



Source: Canva



Emphasizing digital literacy and teamwork also supports essential transversal skills. Organizational goals may include piloting new methods, increasing inter-institutional collaboration, or involving industry partners (Oh, 2019). These should align with the institution's broader mission. For example: "Gather feedback on green innovation topics to inform future VET curricula." Finally, integrating impact evaluation is key. Ask early: "How will success be measured?" Define metrics such as number of prototypes, participant feedback, skill gains, or ongoing mentor engagement (Orr et.al., 2022). Linking evaluation to objectives ensures relevance and helps improve future EDUckathons.

5.2 IDENTIFYING TARGET PARTICIPANTS AND STAKEHOLDERS

A well-designed EDUckathon starts with a clear understanding of who is involved and why. Identifying the right target participants and stakeholders is not just an administrative step but a strategic and pedagogical decision. Participants are the core of the experience, while stakeholders provide the support and structure needed for success (Green & Torres, 2024). Careful selection and engagement of both ensure the EDUckathon is inclusive, dynamic, and impactful.

Target participants usually include **vocational students, adult learners, or VET professionals**. Depending on the EDUckathon's goals, they may be new to their field or experienced practitioners. In some cases, participants may also be **trainers** learning to apply EDUckathons in their own teaching. Regardless of background, participants must be ready to engage in **collaborative, fast-paced, and problem-solving activities** (Green & Torres, 2024).



Source: Canva

Diversity among participants—across disciplines, experience levels, or educational settings - enriches the experience by bringing varied perspectives (Haque et.al, 2022). Organizers must ensure that such diversity is supported through thoughtful planning around language, digital access, and group dynamics to create a truly inclusive environment. Team size is another factor to consider. While EDUckathons can include both small and large groups, teams of 4 to 6 participants work best to encourage collaboration, distribute roles, and provide meaningful feedback opportunities (Haque et.al, 2022).

Beyond participants, **stakeholders** such as **educators, facilitators, mentors, institutional leaders, and industry or community partners** are vital. They contribute through **guidance, expertise, resources,** and long-term support. **Facilitators** guide the learning process without taking over. They need a solid grasp of **design thinking, group dynamics, and active learning strategies.** Proper training is essential, especially for those new to the format.

Mentors provide subject-matter knowledge and real-world perspectives. They might be drawn from businesses, NGOs, alumni, or other sectors and offer feedback, ask challenging questions, and help shape viable solutions. Institutional leaders support the EDUckathon by aligning it with strategic goals, providing access to resources, and integrating it into formal curricula (Oyetade, Zuva & Harmse, 2024). Their involvement also strengthens the institutional commitment to innovation.

Industry stakeholders connect the EDUckathon to real-world relevance. They help define challenges, offer mentorship, and may provide opportunities like internships or future collaborations. Their presence helps bridge the gap between training and employment. Community organizations and public institutions enhance EDUckathons by contributing local or civic challenges, which adds depth, social value, and public visibility to the event (Oyetade, Zuva & Harmse, 2024).



Source: Canva

A **needs and interests analysis** helps align what each group wants to gain with what they offer. Students may seek practical experience, while partners may look for ideas or talent. Aligning expectations strengthens engagement and sustainability. Strong **communication** is key—clear **promotional materials**, **role explanations**, and **onboarding guides** ensure that all participants and stakeholders understand the goals and how to contribute effectively (UNESCO, 2017).

Finally, maintaining **post-event relationships** fosters a long-term culture of innovation (UNESCO, 2017). Follow-up actions like sharing outcomes, feedback, and future plans help stakeholders remain engaged and ready to support future EDUckathons. This ongoing collaboration turns one-time events into part of a sustainable, evolving VET learning ecosystem.



Source: Canva

5.3 SETTING A TIMELINE AND MILESTONES

A successful EDUckathon relies on **careful scheduling** and the establishment of clear milestones. Though the event may last only a few hours or days, its planning, preparation, and follow-up often span several weeks. A well-structured timeline ensures that content, logistics, and engagement tasks are completed efficiently and on time (Resch, Freudhofmayer & Martínez-Usarralde, 2025). Without this, even well-designed events risk falling short due to delays or poor coordination.

The process begins with defining the **total duration** of the EDUckathon journey—from initial concept to final reflection (Resch, Freudhofmayer & Martínez-Usarralde, 2025). A typical planning window is **8–12 weeks**, though this depends on event scale and complexity. The EDUckathon itself may be one or multiple days, but the preparation phase is significantly longer and must account for coordination among different teams and stakeholders.

The timeline usually includes three phases: **pre-event preparation**, **event execution**, and **post-event follow-up** (Schulten & Chounta, 2024). Each has specific deliverables and can be tracked using tools like Gantt charts, planning boards, or milestone trackers for visibility and alignment.



PRE-EVENT PREPARATION

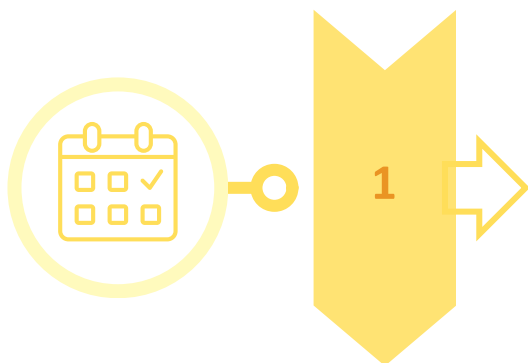


EVENT EXECUTION

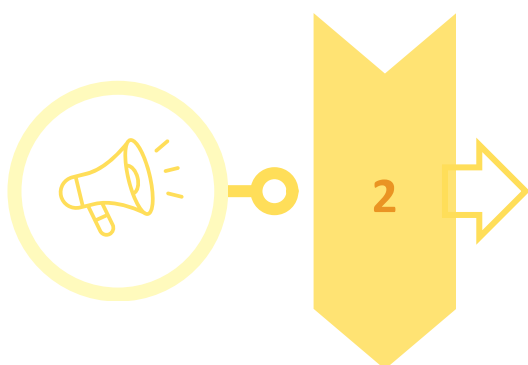


POST-EVENT FOLLOW-UP

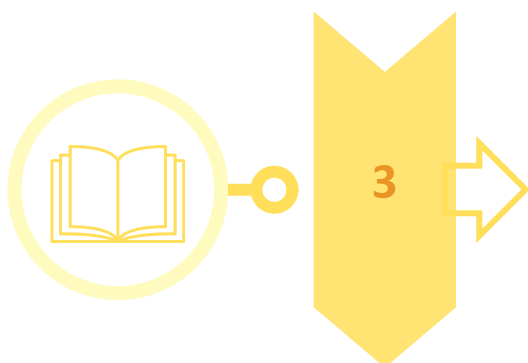
PRE-EVENT PREPARATION



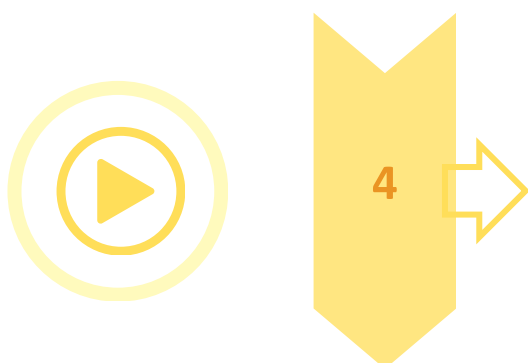
During the **preparation phase**, organizers define the event concept, including theme, objectives, format (in-person, online, or hybrid), and target audience. Early milestones include finalizing the planning team, assigning roles, and securing the date and venue/platform. Key logistical steps like developing materials, recruiting participants, and confirming stakeholders must be scheduled with deadlines and clear responsibilities.



Participant recruitment typically begins 4–6 weeks before the event, with milestones such as launching registration, forming teams, and sharing pre-event materials. At the same time, stakeholder engagement should progress - briefing mentors, facilitators, and industry partners.



A few weeks prior, organizers should finalize all **learning content, toolkits, and facilitation guides**. These resources- such as reflection worksheets, challenge briefs, or prototyping templates—are essential for a smooth event and should be completed well in advance.



One milestone is the **pre-event simulation**, where the team rehearses the full EDUckathon flow. This allows testing of logistics, timing, digital tools, and team coordination. For virtual formats, it's especially important to test breakout rooms, screen sharing, and other platform functions.

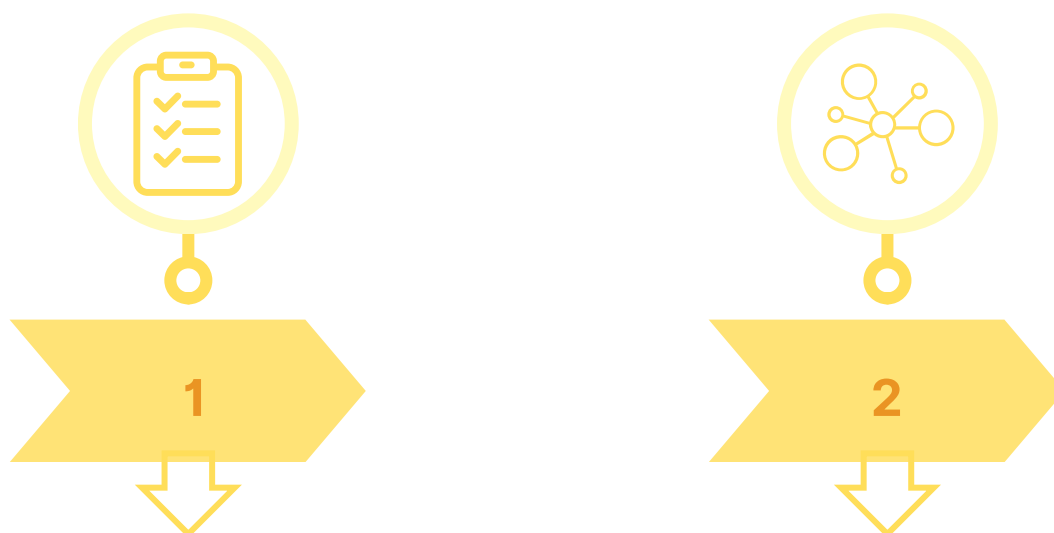
EVENT EXECUTION

The event execution phase requires detailed time management. A clear agenda should guide participants through phases like ideation, prototyping, reflection, and presentation. Milestones such as solution submissions or team check-ins help keep momentum and allow for structured feedback.



Source: Canva

POST-EVENT FOLLOW-UP



Post-event follow-up is vital. Within days, organizers should collect **participant feedback**, debrief with facilitators, and begin evaluating outcomes. This may involve surveys, summary reports, or documentation of key learnings. Prompt action ensures that insights are fresh and usable.

Sharing outcomes with the **wider community** is another milestone (Milićević et.al., 2024). This might include thank-you messages, public reports, or presentations that extend the EDUckathon's impact and prepare the ground for future iterations. Consider planning for sustainability, such as follow-up sessions or a second edition with refined processes (Milićević et.al., 2024). Throughout all phases, regular check-in meetings—weekly or biweekly—help monitor progress, address obstacles, and keep team morale high. Using collaborative tools like shared sheets or project boards improves transparency, especially in multi-institutional settings.

5.4 BUDGETING AND RESOURCE ALLOCATION

Effective budgeting is crucial for delivering a smooth, impactful EDUckathon. Though the event itself may be short, its success relies on thoughtful financial and material planning. Without a clear, realistic budget, even the best-designed experiences may be derailed by delays or missed opportunities (Surendran et al., 2023; Resch et al., 2025). This section outlines how to organize and allocate resources efficiently to support the EDUckathon process.



Budgeting begins with understanding the scale and scope of the event. Factors like number of participants, event duration, delivery format (in-person, virtual, hybrid), and activity complexity all affect financial needs. A small local EDUckathon will require fewer resources than a large hybrid event with external mentors and prototyping (Oyetade et al., 2024).

Key cost categories include: venue/platform fees, facilitator compensation, participant materials, digital tools, prototyping supplies, catering, marketing, transportation, and contingency funds. Other potential costs may include audiovisual support, internet upgrades, or accessibility services like translation or mobility aids (Milićević et al., 2024).



For **in-person events**, the budget will lean heavily on physical infrastructure: space rental, supplies, and creating suitable learning environments. Prototyping items like markers, paper, post-its, and 3D tools should be itemized and costed based on expected use. Cost-saving measures can include bulk purchases, borrowing from partners, or reusing materials.



For **virtual** or **hybrid formats**, the focus shifts to digital infrastructure—video conferencing tools, collaboration platforms, and tech support. Some platforms may be free through institutional access, but organizers must ensure stability and usability across diverse user settings (Oh, 2019).

- **Human resources** are another significant factor. While internal staff may handle some roles, others—like external facilitators, guest speakers, or mentors—may require honoraria. Budgeting for training and preparation time ensures quality delivery and smooth facilitation (Green & Torres, 2024).
- **Participant-related costs** - such as welcome kits, certificates, meals, or transport - also impact the budget. Inclusive planning requires attention to accessibility, including dietary needs, physical access, or adaptive tools that make all learners feel supported.



Source: Canva

A **detailed budget sheet** should track each item's estimated and actual costs, funding source, and responsible team member. Organizing this into logical categories makes it easier to manage and review. A general guide might allocate 30% to logistics, 20% to facilitation, and 15% to materials, with 5–10% reserved for contingency.

To support funding, organizers can combine **internal resources, grants, sponsorships, and in-kind contributions**. For example, a local business might donate materials in exchange for branding visibility. Well-prepared event briefs or proposals can help secure these partnerships (Kong, 2021).

Resource allocation should be value-driven. Every expense should serve the learning experience and event goals. For example, investing in quality facilitation or documentation can have more lasting impact than non-essential items like decorations. Transparency is also key. A shared budget file keeps all team members aligned and informed. In some cases, sharing portions of the budget with stakeholders builds trust and enhances collaboration (Schulten & Chounta, 2024).

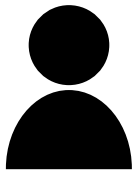


Source: Canva

Post-event, organizers should evaluate the budget—comparing planned and actual costs, measuring impact, and identifying areas for improvement. This reflection helps optimize future EDUckathons, sharpens budgeting skills, and promotes institutional learning.

5.5 CHOOSING A VENUE OR PLATFORM (IN-PERSON VS. VIRTUAL)

Selecting the right **venue** or **platform** is important to an EDUckathon's success. The chosen environment - whether **physical, virtual, or hybrid** - should support key EDUckathon principles like collaboration, creativity, reflection, and hands-on learning (Schulten & Chounta, 2024). This decision must align with pedagogical goals, participant needs, and available resources.



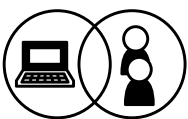
For **in-person EDUckathons**, the venue influences energy, flow, and engagement. Ideal spaces are flexible, open, and collaborative, with natural light, movable furniture, writable surfaces, and breakout areas. Options include classrooms, labs, coworking spaces, or even community centers, provided they meet core criteria: accessibility, technical readiness, and suitability for teamwork and prototyping (Green & Torres, 2024).

The **spatial layout** must support multiple teams working at once, with dedicated **workspaces**, shared tools, and areas for **quiet reflection** or **group presentations**. Strong **internet connectivity**, **technical equipment**, and **accessible amenities** like restrooms or catering options are essential. Considerations like **public transport access**, **safety compliance**, and **multi-day use** should also guide venue selection (Surendran et al., 2023).



For **virtual EDUckathons**, the platform acts as the venue. It must replicate a collaborative and immersive environment. A robust setup includes video conferencing tools (e.g., Zoom, Teams), digital whiteboards (e.g., Miro, Jamboard), file-sharing systems, and messaging platforms. Tools should be user-friendly, stable, and compatible across devices (Oh, 2019).

To ensure smooth **virtual participation**, organizers must offer **orientation materials**, **technical support**, and clear **navigation instructions**. Features like **breakout rooms**, **real-time collaboration**, and **easy access** reduce friction and keep teams focused. To combat **digital fatigue**, online events should include **shorter sessions**, **regular breaks**, and **interactive elements** like **polls** or **visual dashboards** (Haque et al., 2022).



Hybrid EDUckathons combine physical presence with online access, offering flexibility and broader participation. They allow for remote mentors, international participants, and extended engagement. However, they require solid technical infrastructure and thoughtful integration to avoid fragmentation between in-person and virtual groups. Tools like shared workspaces, joint challenges, and co-facilitated sessions promote unity and equity.

Choosing the right format—in-person, virtual, or hybrid—depends on factors such as **participant location**, **budget**, **technology**, and **learning goals**. For example, physical prototyping benefits from in-person setups, while global collaboration may be better online. Hybrid models offer versatility but need extra planning to manage complexity (Milićević et al., 2024).



Source: Canva

Regardless of the format, the chosen **environment** must be learner-centered, promoting a sense of safety, inclusion, and engagement. For physical venues, consider using inspiration walls, posters, or color-coded zones. For digital spaces, integrate visual metaphors, consistent branding, and interactive layouts to create identity and flow.

Lastly, **facilitation** plays a vital role. The best venue or platform can't succeed without skilled facilitators. They must manage space, tools, and group dynamics, whether rearranging furniture or running online breakouts. Their ability to foster interaction and adapt to evolving needs greatly enhances the learning experience (Converse et al., 2024).

5.6 LEGAL AND ETHICAL CONSIDERATIONS

Legal and ethical considerations are essential to creating a safe, inclusive, and responsible EDUckathon experience. While the event is often fast-paced and creative, it involves participants, digital tools, content creation, and sometimes sensitive data—all of which require attention to legal obligations and ethical responsibilities from the start (Surendran et al., 2023; Green & Torres, 2024).



One of the top concerns is **data protection and privacy**. EDUckathons may collect personal information such as names, contact details, media, and performance data. Organizers must comply with regulations by obtaining informed consent, clearly stating what data is collected, how it will be used, and ensuring participants have the right to withdraw consent at any time. This also applies to photos and videos—permission must be obtained before use in public-facing content (Oh, 2019).

Intellectual property is another key area. Participants often generate original ideas and prototypes. Organizers should clearly define ownership in advance. In many cases, allowing participants to retain rights is appropriate, but if institutional or partner involvement is significant, shared agreements or licensing should be established and communicated transparently (Haque et al., 2022).

Safety and wellbeing - both **physical** and **psychological** - are crucial. For in-person events, this means meeting venue safety standards, conducting risk assessments, and ensuring accessibility. In virtual settings, attention shifts to digital security and respectful online behavior. Clear reporting channels and trained facilitators help maintain a safe environment (Milićević et al., 2024).

Inclusivity and non-discrimination are central ethical principles. EDUckathons should be accessible to all, regardless of gender, age, background, disability, or digital access. This involves offering alternative participation options, respecting cultural norms, and training staff to address bias and exclusion. Adaptive resources support equal engagement (Converse et al., 2024).



Source: Canva

Transparency and fairness are also vital. All expectations, roles, and assessment criteria should be communicated clearly. If the EDUckathon includes judging or awards, the process must be equitable and well-explained. Likewise, external partners—such as sponsors or mentors—should have their roles and interests openly disclosed to avoid conflicts of interest.

While some competition may be included, the EDUckathon model emphasizes collaboration, learning, and personal growth. Organizers should avoid undue pressure and instead recognize creativity, effort, and resilience. Participants should feel safe to experiment, fail, and reflect as part of the learning journey.

Ethical facilitation plays a major role. Facilitators must model respectful behavior, support struggling teams, and protect wellbeing—especially for vulnerable groups. Mentors should guide without dominating, encouraging learner autonomy and confidence.

Beyond participants, EDUckathons have an ethical responsibility to society and the environment. Event themes should address real-world challenges like sustainability or inclusion with authenticity. Physical prototyping should use safe, eco-friendly materials, and organizers should plan for waste management (Schulten & Chounta, 2024).



Legal and ethical practices must be documented and reviewed. This includes keeping consent forms, creating a code of conduct, assigning someone to handle complaints, and reflecting on ethical dilemmas in post-event evaluations. Embedding ethics throughout the EDUckathon builds trust, safety, and enhances its educational integrity.

6. EXECUTION OF THE EDUCKATHON

The kickoff sets the tone and expectations for the entire EDUckathon. A dynamic start fosters trust, sparks creativity, and aligns participants with the event's objectives.

PURPOSE OF THE KICKOFF:

- Energize participants and create shared excitement
- Clarify the EDUckathon process
- Set expectations for collaboration and respect
- Build psychological safety



Source: Canva

6.1 WELCOME MESSAGE

The welcome message is the emotional and motivational launch of the EDUckathon. It helps participants feel included, inspired, and ready to engage.

PURPOSE:

- Energize and inspire
- Communicate relevance to VET learning and employability
- Emphasize real-world impact
- Set the tone for inclusion and creativity

Tips for Delivery:

- Be enthusiastic and authentic
- Speak naturally, not from a script
- Use inclusive language
- Acknowledge group expertise
- Encourage co-creation



EFFECTIVE WELCOME STRUCTURE:

01

Warm Greeting

Brief and friendly; acknowledge the diversity and value of participants.

Example: *"Good morning! We're happy to welcome such a diverse group ready to innovate together."*

02

Purpose and Relevance

Link the EDUckathon to practical outcomes in VET.

Example: *"Your ideas today could shape how we prepare learners for real careers."*

03

Keep It Brief

Stay under five minutes. Use clear, engaging language.

04

Make It Personal

Share a short story or testimonial that illustrates impact.

Example: *"One participant last year discovered they were creative—by the end, they had a prototype and confidence to share it."*

6.2 OVERVIEW OF THE EDUCKATHON FLOW

Participants need to know what to expect. A clear overview builds confidence and helps them focus on creative work.



KEY OBJECTIVES:

- Visualize the event structure
- Understand each Design Thinking phase
- Anticipate breaks and transitions
- Know when to expect feedback and mentoring

SUPPORTIVE TOOLS:



- Phase posters
- Progress boards or Kanban walls
- Shared online whiteboards (Miro, Mural)
- Countdown clocks or digital timers

SUGGESTED AGENDA (1-DAY FORMAT):

PHASE	DURATION	FOCUS
Kickoff	30 min	Welcome, orientation
Empathize	60 min	User research, mapping needs
Define	45 min	Reframe challenge (HMW questions)
Ideate	60 min	Brainstorm, select top ideas
Prototype	75 min	Mock-ups, models, storyboards
Test	60 min	Feedback from peers or mentors
Pitching	30 - 45 min	Presentations, team reflection
Wrap-up	15 min	Closing, feedback, certificates



Facilitator Tip:

- Use a color-coded visual guide for each phase—this helps participants stay oriented throughout the event.



Source: Canva

6.3 TEAM INTRODUCTION ACTIVITIES

Participants need to know what to expect. A clear overview builds confidence and helps them focus on creative work.

GOALS:

- Break the ice and build trust
- Foster inclusion and team identity
- Encourage open communication

Facilitator Tip:



- Choose an activity that fits the tone of your group
- Use these activities to support team formation
- Encourage creativity and reward participation (e.g., stickers or small tokens)

SUGGESTED ACTIVITIES (15–20 MINUTES):

01

Two Truths and a Prototype

Share two true facts and one idea to prototype.

02

Speed Networking

Rotate pairs every 3 minutes with fun prompts.

03

Emoji Mood Check-In

Choose an emoji to describe how you're feeling and explain why.

6.4 TOOLKIT DISTRIBUTION

Toolkits help participants move through the EDUckathon confidently and independently. They can be physical or digital.

TOOLKIT SHOULD INCLUDE:

- Design Thinking phase sheets (1 per phase)
- Team Roles Poster (facilitator, timekeeper, note-taker, etc.)
- Challenge Brief (problem summary and context)
- Activity Templates (e.g., empathy map, "How Might We," prototype worksheet)
- Reflection Tools (cards or prompts for feedback and journaling)
- Mentor Contact List (who to ask and when)

FORMATS:



In-person: Folders or clipboards per team



Online: Shared folders (Google Drive), collaborative whiteboards, Notion

Facilitator Tip:



- Review toolkit contents during orientation. Emphasize they are flexible tools—not rigid instructions.

6.5 ORIENTATION TOOLS AND TRACKING

Clear progress tracking helps participants stay focused and confident throughout the event.



KEY TOOLS:

- Visual journey maps of the Design Thinking phases
- Team Boards (digital or physical) with:
 - Prototype uploads
 - Progress checklists
 - Mentor/peer feedback space
- Timers and countdowns (projected or app-based)

Facilitator Tip:



- Introduce tracking tools during kickoff
- Check team boards during transitions
- Use shared color-coding and symbols to reduce confusion



BONUS:

“Team HQ” spaces or digital rooms help create a studio-like atmosphere.

6.6 MENTORING AND GUIDANCE

Mentors provide content-specific support while facilitators guide the overall process. Mentoring should be timely, empowering, and focused on reflection—not on giving solutions.

MENTOR ROLES:

- **Subject-Matter Mentors:** Industry relevance
- **Process Mentors:** Design Thinking guidance
- **Soft Skills Mentors:** Communication and collaboration
- **Peer Mentors:** Experienced participants sharing insights

KEY TECHNIQUES:



Ask open-ended questions



Use real-world examples



Support iteration: “What’s one small thing you could test next?”

MENTORING BY PHASE:

PHASE	MENTOR ROLE
Empathize	Clarify user needs
Define	Refine the challenge
Ideate	Spark new thinking, challenge limits
Prototype	Check feasibility, offer suggestions
Test	Support feedback integration

6.7 MANAGING TIME AND RESOURCES

Effective time and resource management ensures focus and creativity. EDUckathons run best with **just enough structure**.

SAMPLE TIME BLOCKS:

PHASE	TIME
Empathize	60 min
Define	45 min
Ideate	60 min
Prototype	75 min
Test	60 min



Time Management Tips:

- Share a visual agenda from the start
- Use countdowns and phase check-ins
- Assign team timekeepers
- Plan short energizer breaks



Facilitator Tip: Create team kits in advance. Label and color-code for easy distribution.

RESOURCE PLANNING:



Materials: Templates, markers, post-its, prototype supplies



Digital Tools: Miro/Mural, Google Drive, Trello, Zoom



Tech Support: Assign someone to assist with Wi-Fi, logins, etc.

6.8 HANDLING CHALLENGES AND CONFLICTS

Conflicts and creative blocks are normal. Facilitation should focus on prevention, respectful resolution, and team well-being.

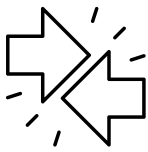
COMMON CHALLENGES:

- Unequal participation
- Creative fatigue
- Time pressure
- Technical issues
- Cultural or language barriers



PREVENTIVE STRATEGIES:

- Establish team norms at the start
- Use check-ins and reflection pauses
- Encourage micro-breaks and quiet spaces



CONFLICT RESPONSE STEPS:

- **Peer Dialogue** – “Can we revisit that idea together?”
- **Facilitator Support** – Mediate with open questions
- **Mentor Help** – For unresolved issues



FOR CREATIVE BLOCKS:

- Ask “What would your user say about this?”
- Try a “Worst Idea Wins” brainstorm
- Use random prompts or mentor input



SAFETY & WELL-BEING:

- Assign a point person for emotional safety
- Offer quiet areas or off-camera time in virtual events
- Respect confidentiality and allow temporary breaks



Source: Canva

6.9 FACILITATING KOLB’S LEARNING CYCLE

Kolb’s model (Experience → Reflect → Learn → Apply) helps embed deeper learning in EDUckathon activities.

KOLB STAGE	EDUCKATHON ACTIVITY EXAMPLE
Concrete Experience	Prototyping, stakeholder interviews
Reflective Observation	Group debriefs, feedback circles
Abstract Conceptualization	Insight mapping, team learning posters
Active Experimentation	Role-plays, mini-pitches, action plans



FACILITATOR ACTIONS:

- Allow space for trial and error
- Schedule short reflection times
- Encourage synthesis before concept teaching
- Support testing and pitching in the final phase

7. ASSESSMENT AND EVALUATION



Assessment and evaluation are critical components of any educational initiative, and EDUckathons are no exception. This chapter outlines key areas and methodologies for evaluating the success of EDUckathons and the learning outcomes achieved by participants.

Since EDUckathons are designed both for teachers/trainers and VET learners, the assessment and evaluation will have to take the different goals and learning outcomes into account.

7.1 MEASURING LEARNING OUTCOMES

Measuring learning outcomes in EDUckathons goes beyond traditional assessments. It focuses on the practical application of knowledge and the development of new skills. The primary output of an EDUckathon is the learning outcome of the participating individuals, whether they are VET professionals or learners. Therefore, assessment should be designed to capture this unique aspect.



Source: Canva

Pre- and Post-Event Assessments



Administering surveys or short quizzes before and after the EDUckathon can help gauge the increase in participants' knowledge and confidence in specific areas. These assessments should be tailored to the EDUckathon's objectives and themes.

Project-Based Evaluation



When EDUckathons for VET students involve participants developing solutions or prototypes, the quality, innovation, and feasibility of these projects serve as direct indicators of learning. Evaluation criteria should be clearly defined and communicated to participants at the outset. This can involve rubrics assessing problem understanding, creativity of solutions, technical execution, and presentation skills.

Self-Assessment and Peer Review



Encouraging participants to reflect on their own learning journey and to provide constructive feedback to their peers can foster a deeper understanding of the material and promote self-directed learning. This aligns with the andragogic strategies emphasized in the design of EDUckathons.

Portfolios and Learning Journals



Participants should be motivated to maintain a portfolio of their work, including initial ideas, iterations, and final solutions, along with a learning journal documenting their challenges, insights, and skill development. This provides a holistic view of their progress.

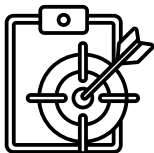
7.2 EVALUATING THE SUCCESS OF THE EDUCKATHON

Evaluating the overall success of an EDUckathon involves assessing various aspects beyond individual learning outcomes. It encompasses the **effectiveness** of the event's organization and its **impact on participants**. This evaluation helps in identifying areas for further improvement.



Participant Satisfaction and Engagement

Surveys and feedback forms can measure participants' satisfaction with the EDUckathon's structure, content, facilitation, mentorship, and overall experience. High satisfaction often correlates with positive learning experiences.



Achievement of Objectives

Assess whether the EDUckathon met its stated objectives, such as fostering creativity, promoting skill development, or addressing specific challenges within the VET sector. This can be done through qualitative insights gathered from focus groups and interviews.



Long-Term Impact

While challenging to measure immediately, the long-term impact of an EDUckathon can be assessed through follow-up surveys with participants to determine if they applied the learned skills in their professional lives or if the experience led to career advancements or new initiatives.

7.3 FEEDBACK COLLECTION FROM PARTICIPANTS

Systematic feedback collection from participants is vital for understanding their experiences, identifying strengths, and pinpointing areas for improvement. Diverse methods should be employed to gather comprehensive insights.

Different methods can be employed here that have proven to be effective in other events and activities.

Post-Event Surveys

Comprehensive surveys distributed immediately after the EDUckathon can capture participants' perceptions on various aspects, including the relevance of content, effectiveness of facilitators and mentors, logistical arrangements, and overall satisfaction.

These surveys include both quantitative (rating scales) and qualitative (open-ended questions) elements.



Source: Canva

Focus Groups

Small, facilitated discussions with a representative group of participants can provide deeper qualitative insights into their experiences, challenges, and suggestions. This allows for exploration of nuances that might not be captured in surveys.



Source: Canva

Interviews

One-on-one interviews with selected participants can offer in-depth perspectives on their learning journey, the impact of the EDUckathon on their skills, and their recommendations for future events. This is particularly useful for gathering rich, anecdotal evidence.

Observation

Facilitators and organizers can observe participant engagement, team dynamics, and problem-solving approaches throughout the EDUckathon. This provides real-time data on the effectiveness of the activities and interventions.

Digital Feedback Platforms

Providing anonymous channels for feedback can encourage participants to share honest opinions and suggestions without hesitation. There are different platforms available.^[5]

⁵ [https://www.proprofssurvey.com/blog/best-anonymous-feedback-tools/%20\(assessed%2004/08/2025\)](https://www.proprofssurvey.com/blog/best-anonymous-feedback-tools/%20(assessed%2004/08/2025))

7.4 CONTINUOUS IMPROVEMENT AND ITERATION

Assessment and evaluation are not merely about judging events in hindsight; they are integral to the cycle of continuous improvement. The insights gained from feedback and evaluation should directly inform the planning and design of future EDUckathons, ensuring that each iteration is more effective and impactful than the last.

Crucial steps for this process are:

Data Analysis and Reporting



Systematically analyse all collected feedback and evaluation data. Generate comprehensive reports that highlight key findings, successes, challenges, and actionable recommendations.

Stakeholder Review Meetings



Convene meetings with organizers, facilitators, mentors, and other key stakeholders to review the evaluation findings. Facilitate discussions to interpret the data and collectively identify areas for improvement.

Action Planning



Based on the review, develop a concrete action plan for implementing changes in subsequent EDUckathons. This might involve refining the curriculum, adjusting the schedule, modifying facilitation techniques, or enhancing promotional strategies.

Pilot refined programs



For significant changes, consider piloting new approaches on a smaller scale before full implementation. This allows for further refinement and minimizes risks.



Source: Canva

7.5 ASSESSING EXPERIENTIAL LEARNING

Experiential learning emphasizes on **hands-on learning** and **practical application**. Assessing experiential learning requires methodologies that capture the dynamic process of learning by doing, aligning with **Kolb's Experiential Learning Cycle** (*Concrete Experience, Reflective Observation, Abstract Conceptualization, Active Experimentation*).



Source: Canva

Each Stage of Kolb's Cycle can be evaluated separately.

01 **Concrete Experience**
Assessment in this first stage focuses on participants' **active involvement** in the EDUckathon activities. This can be observed through their participation in brainstorming sessions, designing, or discussions. Documentation of their direct involvement can also serve as evidence.

02 **Reflective Observation**
This stage involves participants **reflecting on their experiences**. In this part, assessment can be done through **learning journals**. Participants document their thoughts, feelings, and observations during the EDUckathon, reflecting on what went well, what challenges they faced, and what they learned.

03 **Abstract Conceptualization**
Here, participants **make sense of their experiences** by forming **new ideas** or modifying existing ones. Assessment can involve **Concept Mapping** where Participants create visual representations of their understanding of key concepts before and after the EDUckathon.

Problem-Solving Exercises, where participants are presented with new, related problems to see how they can apply the abstract concepts learned, are also an option.

04 **Active Experimentation**
In this final stage participants **apply their new knowledge and skills** in new situations. This can be assessed through the presentation of the skills and knowledge gained during the EDUckathon.



8. TOOLS, TEMPLATES, AND RESOURCES

8.1. PLANNING CHECKLIST

8.2. SAMPLE AGENDAS

8.3. FEEDBACK FORMS

8.4. PROTOTYPING TEMPLATES

8.5. BUDGETING TEMPLATES

8.6. DIGITAL TOOLS FOR COLLABORATION

8.7. PROTOTYPING MATERIALS

8.8. EXPERIENTIAL LEARNING TOOLS



8.1. PLANNING CHECKLIST

This template integrates elements from various chapters, including roles, responsibilities, practical considerations, and assessment.

This checklist is designed to help plan and execute a successful EDUckathon, incorporating the principles and phases outlined in the EDUckathons GUIDE.

Project Name:

Date(s) of Event:

Location (In-Person/Virtual/Hybrid):

Organized By:

Lead Organizer:

1

PHASE

CONCEPTUALIZATION & INITIAL PLANNING (CHAPTER 1 & 5.1, 5.2)

1.1 Define Objectives & Goals

- Clearly articulate the main purpose of the EDUckathon (e.g., upskilling, reskilling, innovative VET offerings).
- Set measurable learning outcomes for participants (learners and/or educators).
- Determine the specific problem/challenge area for the VET sector the EDUckathon will address.

1.2 Identify Target Participants & Stakeholders

- Define the primary target audience (e.g., VET students, VET teachers, industry professionals).
- Identify key stakeholders (e.g., industry experts, local businesses, community organizations).

1.3 Understand the EDUckathon Concept

- Confirm understanding of how EDUckathons differ from traditional hackathons (focus on learning outcomes).
- Review the conceptual frameworks: Design Thinking, Experiential Learning (Kolb's Cycle), Gamification, Andragogy.

DESIGN & STRUCTURE (CHAPTER 2, 3)

2.1 Conceptual Framework Integration

- Design Thinking: Plan how each of the five phases (Empathize, Define, Ideate, Prototype, Test) will be integrated into the EDUckathon schedule.
- Experiential Learning (Kolb's Cycle): Design activities to support Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation.
- Gamification/Game-based Learning: Consider incorporating elements like progress tracking, achievement badges, hint cards, or timed challenges to boost engagement.
- Andragogy: Ensure activities align with adult learning principles (self-directed learning, leveraging experience, problem-centered, active learning, internal motivation).

2.2 Process & Structure

- Determine the overall structure and flow of the EDUckathon.
- Scope & Duration: Decide on the event length (e.g., 2.5 hours, 1-day, multi-day).
- Themes & Challenges: Define concrete, manageable, and meaningful vocational challenges for participants.
- Ensure challenges are relevant to the VET sector and potential real-world scenarios.

2.3 Designing Specific Activities

- Outline specific activities for each Design Thinking phase (e.g., empathy mapping, brainstorming sessions, low-fidelity prototyping).
- Plan for structured reflection sessions (debriefing questions, individual/team reflection).
- Design activities for abstract conceptualization (identifying lessons learned, mapping to broader principles).
- Plan for active experimentation/improvement phases (refining solutions, applying to new scenarios).

ROLES & RESPONSIBILITIES (CHAPTER 4)

3.1 Identify & Recruit Personnel

- Organizers: Assign roles for overall coordination, logistics, communications, and budget.
- Facilitators: Recruit and train facilitators (VET teachers) to guide teams without lecturing.
- Mentors: Identify subject-matter experts or industry professionals to provide guidance.
- Industry Experts/Stakeholders: Secure participation for real-world perspectives and feedback.

3.2 Briefing & Training

- Conduct briefing sessions for all roles (organizers, facilitators, mentors) on their responsibilities and the EDUckathon methodology.
- Provide facilitators with resources on Design Thinking, Kolb's Cycle, and effective debriefing techniques.

PLANNING & PREPARATION (CHAPTER 5)

4

PHASE

4.1 Setting Timeline & Milestones

- Create a detailed timeline for all planning activities leading up to the event.
- Set key milestones (e.g., challenge definition, participant recruitment, venue booking, material preparation).

4.2 Budgeting & Resource Allocation

- Develop a comprehensive budget, including venue costs, materials, refreshments, and personnel.
- Allocate necessary resources (e.g., tools, templates, prototyping materials).

4.3 Choosing Venue/Platform

- Select an appropriate venue (classroom, workshop, innovation lab, online platform) based on event type (in-person, virtual, hybrid).
- Ensure the venue is suitable for collaborative and active learning activities.

4.4 Legal & Ethical Considerations

- Address any necessary legal or ethical considerations (e.g., participant consent, data privacy, intellectual property).

5

PHASE

EXECUTION (CHAPTER 6)

5.1 Pre-Event Setup

- Prepare all necessary materials, equipment, and digital tools.
- Set up the event space (physical or virtual) to facilitate collaboration.

5.2 During the Event

- Kickoff & Orientation: Start with clear objectives, rules, and icebreakers.
- Facilitating Collaboration: Actively encourage teamwork and creative problem-solving.
- Mentoring & Guidance: Ensure mentors and facilitators provide timely and constructive support.
- Time & Resource Management: Keep the event on schedule and manage resources effectively.
- Handling Challenges/Conflicts: Have a plan for addressing unexpected issues or team conflicts.
- Facilitating Kolb's Learning Cycle: Guide participants through hands-on experience, reflection, conceptualization, and active experimentation.

6

ASSESSMENT & EVALUATION (CHAPTER 7)

6.1 Measuring Learning Outcomes

- Plan methods for assessing if participants achieved the defined learning outcomes.

- Evaluate each stage of Kolb's Cycle: Concrete Experience (e.g., quality of prototypes), Reflective Observation (e.g., depth of debriefing discussions), Abstract Conceptualization (e.g., clarity of lessons learned), Active Experimentation (e.g., applicability of refined solutions).

6.2 Evaluating Event Success

- Determine criteria for evaluating the overall success of the EDUckathon (e.g., participant satisfaction, innovation of solutions, feedback from stakeholders).

6.3 Feedback Collection

- Prepare feedback forms for participants, facilitators, and mentors.
- Plan for debriefing sessions with organizers and key personnel to gather insights.

6.4 Continuous Improvement

- Analyze feedback to identify areas for improvement for future EDUckathons.

TOOLS, TEMPLATES & RESOURCES (CHAPTER 8)

7.1 Prepare Essential Documents

- Final Event Agenda.
- Planning Checklist (this template).
- Participant Welcome Pack/Information.
- Facilitator/Mentor Guides.
- Sample Agendas: (Refer to the provided 1-day EDUckathon schedule as a base).
- Feedback Forms: Design forms for participants, facilitators, and mentors.
- Prototyping Templates: Provide templates or guidelines for solution development.
- Budgeting Templates: Use for financial tracking.
- Digital Tools: Identify and prepare tools for collaboration (e.g., online whiteboards, communication platforms).
- Prototyping Materials: List and acquire necessary physical materials.
- Experiential Learning Tools:
 - Reflection Journals (if applicable).
 - Debriefing Guides with open-ended questions.

Kolb's Cycle Activity Templates to ensure coverage of all stages.

POST-EVENT ACTIVITIES (CHAPTER 9 & 10)

8.1 Documentation

- Compile event outcomes, solutions, and key learnings.
- Create a glossary of terms for the guide.

8.2 Dissemination & Follow-up



8.2. SAMPLE AGENDAS

These sample agendas are designed to be adaptable and can be customized based on the specific learning objectives, target audience (VET students or VET professionals), and complexity of the challenges. They integrate the key conceptual frameworks of Design Thinking, Experiential Learning (Kolb's Cycle), Gamification, and Andragogy.

SHORT, FOCUSED EDUCKATHON AGENDA (2.5 - 3 HOURS)

This agenda is ideal for an introductory session, a quick problem-solving sprint, or when time is limited. It focuses on a streamlined Design Thinking process and hits key points of experiential learning.

Target: VET Students or Professionals (introductory level)

Challenge Type: Single, well-defined, and narrow problem

Key Focus: Quick ideation and low-fidelity prototyping, immediate application of concepts.

Time	Activity	Description	Conceptual Frameworks	Materials/Tools
0:00 - 0:15	Welcome and Introduction	Briefly introduce the EDUckathon concept, objectives, and the challenge. Icebreaker activity	Andragogy	Presentation slides, Whiteboard/Fli pchart
0:15 - 0:45	Empathize & Define	Introduction to the challenge. Teams explore the problem from the user's perspective. Define the core problem statement.	Design Thinking (Empathize, Define), Andragogy	Challenge brief, Empathy mapping template, User personas
0:45 - 1:30	Ideate & Prototype (Low-Fidelity)	Brainstorming solutions. Teams select promising ideas and create quick, low-fidelity prototypes (e.g., sketches, storyboards, simple mock-ups).	Design Thinking (Ideate, Prototype), Experiential Learning (Concrete Experience), Gamification (optional: timed challenge)	Brainstorming techniques, Ideation templates, Prototyping materials (paper, pens, sticky notes)
1:30 - 2:00	Test & Feedback	Teams present their prototypes and receive feedback from other teams, facilitators, or mentors.	Design Thinking (Test), Experiential Learning (Reflective Observation)	Presentation guidelines
2:00 - 2:30	Reflect & Conceptualize	Structured reflection on the process and learnings. Teams identify key takeaways and connect them to broader VET principles.	Experiential Learning (Reflective Observation, Abstract Conceptualization), Andragogy	Debriefing questions, Reflection templates
2:30 - 2:45	Active Experimentation & Wrap-up	Discuss potential next steps for refining solutions or applying learnings. Summarize key outcomes and thank participants.	Experiential Learning (Active Experimentation), Andragogy	Action planning template

1-DAY EDUCKATHON AGENDA (6 - 8 HOURS)

This agenda allows for a more in-depth exploration of the Design Thinking process and a fuller integration of experiential learning cycles. It can accommodate more complex challenges and a larger target audience.

Target: VET Students or Professionals

Challenge Type: Moderately complex VET problem

Key Focus: Comprehensive Design Thinking process, multiple cycles of experiential learning, development of more refined prototypes.

Time	Activity	Description	Conceptual Frameworks	Materials/Tools
0:00 - 0:30	Welcome, Introduction, and Icebreaker	Introduce the EDUckathon, its objectives, the day's agenda, and the challenge. Facilitate an icebreaker to build team rapport.	Andragogy	Presentation slides, Whiteboard/Flip chart
0:30 - 1:30	Empathize	Teams delve into understanding the challenge from the perspective of users, stakeholders, and the VET context. Conduct interviews, observations, or analyze existing data.	Design Thinking (Empathize), Andragogy	Challenge brief, Research guidelines, Interview protocols, Empathy mapping template
1:30 - 2:30	Define	Teams synthesize their empathy findings to identify key insights and define a clear, actionable problem statement.	Design Thinking (Define), Experiential Learning (Reflective Observation, Abstract Conceptualization)	Synthesis techniques, Problem framing templates
2:30 - 3:30	Ideate	Teams brainstorm a wide range of potential solutions to the defined problem statement. Encourage creative and "out-of-the-box" thinking.	Design Thinking (Ideate), Experiential Learning (Concrete Experience), Gamification (optional: ideation games)	Brainstorming techniques (e.g., sticky notes, mind mapping), Ideation templates

Time	Activity	Description	Conceptual Frameworks	Materials/Tools
3:30 - 4:30	Prototype	Teams select the most promising ideas and develop prototypes. These can range from low-fidelity (sketches) to medium-fidelity (basic digital mock-ups, role-playing).	Design Thinking (Prototype), Experiential Learning (Concrete Experience)	Prototyping materials (physical and digital), Prototyping guidelines
4:30 - 5:30	Test	Teams test their prototypes with target users or stakeholders to gather feedback. This can involve presenting the prototype and observing user interaction.	Design Thinking (Test), Experiential Learning (Reflective Observation)	Testing scenarios, Feedback forms, Observation guidelines
5:30 - 6:30	Reflect, Conceptualize, and Active Experimentation	Structured reflection on the entire Design Thinking process and the feedback received. Teams identify lessons learned, refine their solutions based on feedback, and discuss how to apply these learnings in other VET contexts.	Experiential Learning (Reflective Observation, Abstract Conceptualization, Active Experimentation), Andragogy	Debriefing questions, Reflection templates, Action planning template
6:30 - 7:00	Presentations and Wrap-up	Teams present their final refined solutions and key takeaways. Summarize the day's achievements, thank participants, and discuss potential next steps (e.g., further development, implementation).	Andragogy	Presentation guidelines

MULTI-DAY EDUCKATHON AGENDA (2+ DAYS)

A multi-day EDUckathon allows for a deeper dive into complex VET challenges, more extensive research and empathy work, multiple cycles of prototyping and testing, and the potential for developing more robust and implementable solutions.

Target: VET Professionals or Advanced Students

Challenge Type: Complex, multi-faceted VET problem

Key Focus: In-depth Design Thinking process, multiple iterations of experiential learning, development of more refined and potentially implementable solutions.

Day 1: Empathize and Define

Time	Activity	Description	Conceptual Frameworks	Materials/Tools
Morning	Welcome, Introduction, and Team Formation	Introduce the EDUckathon, its overarching goals, the multi-day agenda, and the complex VET challenge. Facilitate team formation and initial icebreakers.	Andragogy	Presentation slides, Whiteboard/Flipchart, Team building activities
Late Morning - Afternoon	In-depth Empathize	Teams conduct extensive research, interviews, observations, and data analysis to gain a deep understanding of the challenge from all relevant perspectives (users, stakeholders, VET system).	Design Thinking (Empathize), Andragogy	Challenge brief, Comprehensive research guidelines, Interview protocols, Data analysis tools, Empathy mapping templates
Late Afternoon	Define	Teams synthesize their rich empathy findings to identify core insights, patterns, and unmet needs. They work to formulate a clear, compelling, and actionable problem statement that captures the essence of the challenge.	Design Thinking (Define), Experiential Learning (Reflective Observation, Abstract Conceptualization)	Synthesis techniques, Insight clustering tools, Problem framing templates
Evening	Reflection and Planning for Day 2	Teams reflect on the day's learnings and plan their approach for the Ideate and Prototype phases on Day 2.	Experiential Learning (Reflective Observation, Abstract Conceptualization), Andragogy	Debriefing questions, Reflection templates, Action planning template

Day 2 (or subsequent days): Ideate, Prototype, Test, and Refine

Time	Activity	Description	Conceptual Frameworks	Materials/Tools
Morning	Ideate	Teams engage in intensive brainstorming sessions to generate a wide array of potential solutions to the defined problem statement. Encourage diverse perspectives and wild ideas.	Design Thinking (Ideate), Experiential Learning (Concrete Experience), Gamification (optional: advanced ideation techniques)	Advanced brainstorming techniques, Ideation templates, Visual thinking tools
Late Morning – Early Afternoon	Prototype (Round 1)	Teams select their top ideas and develop initial prototypes. These can be low- to medium-fidelity, depending on the challenge (e.g., physical mock-ups, digital wireframes, role plays, process maps).	Design Thinking (Prototype), Experiential Learning (Concrete Experience)	Prototyping materials (craft, digital tools, modeling software), Prototyping guidelines
Afternoon	Test and Gather Feedback	Teams test their prototypes with users, peers, or experts. Observe interactions and gather structured feedback for iteration.	Design Thinking (Test), Experiential Learning (Reflective Observation)	Testing scenarios, Feedback forms, Observation checklists
Late Afternoon	Refine and Iterate (Prototype Round 2)	Based on feedback, teams refine or pivot their solutions. Emphasis is placed on iteration, feasibility, and implementation potential.	Design Thinking (Prototype, Test), Experiential Learning (Active Experimentation)	Updated prototyping tools, Iteration tracking templates
Evening	Reflection and Preparation for Final Presentations	Teams reflect on the feedback and learning process, finalize their solutions for presentation, and prepare key insights and visual materials.	Experiential Learning (Reflective Observation, Abstract Conceptualization), Andragogy	Reflection templates, Presentation design tools



8.3. FEEDBACK FORMS

PRE-EVENT SURVEY FOR EDUCKATHON PARTICIPANTS

Instructions: Please answer the following questions to the best of your ability. Your feedback is valuable for us to understand your expectations and tailor the EDUckathon to your needs.

Part 1: Participant Profile



Full Name:



Email Address:



Organization/Institution:



Your Role/Position:

Part 2: Experience and Expectations

How would you rate your current understanding of Design Thinking principles?

☐

No prior knowledge

☐

Intermediate understanding

☐

Basic understanding

☐

Advanced understanding

Have you ever participated in a hackathon or a similar intensive workshop event before?

☐

Yes

☐

No

If yes, please briefly describe the event and your role in it.

What are your main motivations for participating in this EDUckathon? (Select all that apply)

- | | |
|--|---|
| ☐ To learn about new teaching and training methodologies. | ☐ To find solutions to specific challenges in my work. |
| ☐ To develop new skills for designing VET programs. | ☐ Other (please specify): |
| ☐ To network with other VET professionals. | |

What specific skills or knowledge do you hope to gain from this EDUckathon?

What are the biggest challenges you currently face in your work related to VET?

Part 3: Logistical Information

Do you have any dietary restrictions or allergies?

Do you require any special accommodations to participate fully in the event?

Thank you for your time! We look forward to seeing you at the EDUckathon.

EDUCKATHON LEARNING JOURNAL

This learning journal is designed to help you reflect on your experiences, learning, and insights throughout the EDUckathon. Take time each day to fill out the sections below

DAY [DAY NUMBER]: [DATE]
1. KEY ACTIVITIES & TOPICS COVERED • What were the main activities you participated in today? • What key topics or concepts were introduced or discussed?
2. WHAT I LEARNED TODAY • What new knowledge or skills did you acquire? • Were there any surprising insights or aha! moments?
3. CHALLENGES & QUESTIONS • What challenges did you encounter? • What questions do you still have?
4. APPLICATION & FUTURE STEPS • How can you apply what you learned today to your work or studies? • What are your next steps based on today's learning?
5. REFLECTION & FEELINGS • How do you feel about your progress today? • What was most impactful or memorable?

OVERALL REFLECTION (AFTER THE EDUCKATHON)
1. KEY TAKEAWAYS • What are the most important things you will take away from this EDUckathon?
2. IMPACT ON PRACTICE • How do you envision applying the knowledge and skills gained in your professional practice?
3. SUGGESTIONS FOR IMPROVEMENT • What suggestions do you have for improving future EDUckathons?
4. ADDITIONAL COMMENTS • Any other thoughts or comments you'd like to share.

EDUCKATHON PEER REVIEW TEMPLATE

Instructions: Please use this template to provide constructive feedback to your peers. Your honest and thoughtful review is crucial for their learning and improvement.

1. Reviewer Information

 Your Name: _____

 Your Team Name: _____

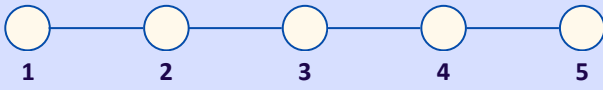
2. Project/Team Being Reviewed

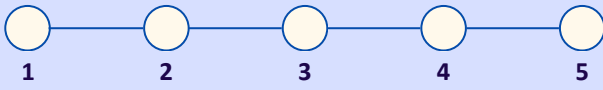
 Project Title: _____

 Team Name: _____

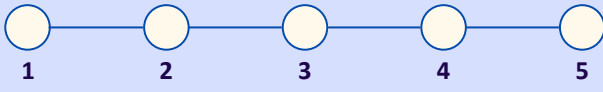
3. Evaluation Criteria (Rate on a scale of 1-5, where 1 = Needs Significant Improvement, 5 = Excellent)

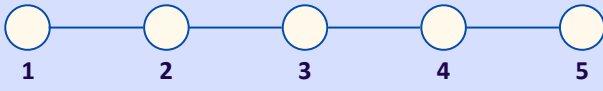
3.1 Problem Definition & Understanding

Clarity of the problem addressed: 

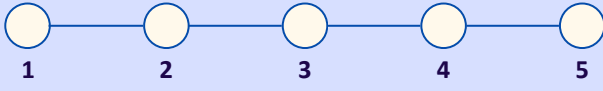
Evidence of understanding the target audience/users: 

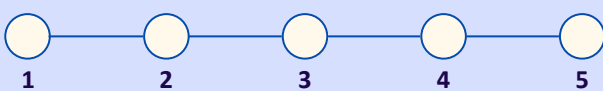
3.2 Innovation & Creativity

Originality of the solution/idea: 

Creativity in approach and design: 

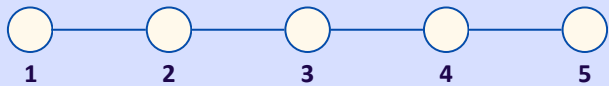
3.3. Feasibility & Practicality

Realism and practicality of the proposed solution: 

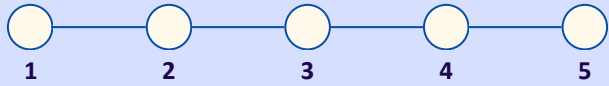
Consideration of resources and constraints: 

3.4. Presentation & Communication

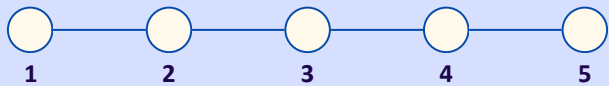
Clarity and coherence of the presentation:



Effectiveness in conveying the message:



Engagement of the audience:



4. Strengths

What were the strongest aspects of the project/presentation? (e.g., clear problem, innovative solution, strong presentation skills)

5. Areas for Improvement

What aspects could be improved? (e.g., problem definition, solution development, presentation clarity)

6. Overall Feedback & Recommendations

What is your overall impression of the project?

What specific recommendations do you have for the team to further develop their idea or presentation?

*Thank you for
your valuable
feedback!*

PARTICIPANT SATISFACTION SURVEY

Instructions: Your feedback is important to us! Please take a few moments to complete this survey about your experience.



1. OVERALL SATISFACTION

How satisfied are you with your overall experience?

☐ Very Satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very Dissatisfied

2. CONTENT AND ACTIVITIES

How relevant was the content to your needs?

☐ Very Relevant

☐ Relevant

☐ Neutral

☐ Irrelevant

☐ Very Irrelevant

How engaging were the activities?

☐ Very Engaging

☐ Engaging

☐ Neutral

☐ Not Engaging

☐ Very Not Engaging

Did you gain new knowledge or skills?

☐ Yes, significantly

☐ Yes, moderately

☐ Yes, slightly

☐ No

3. FACILITATION/SUPPORT

How effective was the facilitator/support team?

☐ Very Effective

☐ Ineffective

☐ Effective

☐ Very Ineffective

☐ Neutral

Were your questions adequately addressed?

☐ Always

☐ Rarely

☐ Most of the time

☐ Never

☐ Sometimes

4. LOGISTICS AND ORGANIZATION

How would you rate the organization of the event?

☐ Excellent

☐ Fair

☐ Good

☐ Poor

Were the facilities adequate?

☐ Excellent

☐ Fair

☐ Good

☐ Poor

5. RECOMMENDATIONS AND COMMENTS

What suggestions do you have for improvement? Would you recommend this kind of activity to others?

☐ Yes, definitely

☐ No, probably not

☐ Yes, probably

☐ No, definitely not

☐ Not sure

ANY ADDITIONAL COMMENTS?

*Thank you for
your feedback!*

POST-EVENT SURVEY FOR EDUCKATHON PARTICIPANTS

Instructions: Thank you for participating in the EDUckathon! Your feedback is crucial for us to improve future events. Please take a few minutes to complete this survey.



Part 1: General Feedback

Overall, how would you rate your experience at the EDUckathon?

☐ Excellent

☐ Fair

☐ Good

☐ Poor

What was the most valuable aspect of the EDUckathon for you?

What was the least valuable aspect of the EDUckathon for you?

How well did the EDUckathon meet your expectations?

☐ Exceeded expectations

☐ Partially met expectations

☐ Met expectations

☐ Did not meet expectations



Part 2: Content and Learning

How relevant was the content presented during the EDUckathon to your work in VET?

☐

Very relevant

☐

Slightly relevant

☐

Moderately relevant

☐

Not relevant

Did you gain new skills or knowledge related to Design Thinking and VET program design?

☐

Yes, significantly

☐

Yes, slightly

☐

Yes, moderately

☐

No

Which specific sessions or activities did you find most beneficial for your learning?

What topics or areas would you have liked to see covered in more detail?

Part 3: Logistics and Organization

How would you rate the organization and logistics of the EDUckathon (e.g., venue, schedule, materials)?

☐

Excellent

☐

Fair

☐

Good

☐

Poor

Were the facilitators/mentors helpful and supportive?

☐

Always

☐

Rarely

☐

Most of the time

☐

Never

☐

Sometimes

Do you have any suggestions for improving the logistical aspects of future EDUckathons?

Part 4: Impact and Future Application

How do you plan to apply the knowledge and skills gained from this EDUckathon in your work?

Would you recommend participating in an EDUckathon to your colleagues?

☐

Yes, definitely

☐

No, probably not

☐

Yes, probably

☐

No, definitely not

☐

Not sure

Any additional comments or feedback?

*Thank you for
your valuable
feedback!*



8.4. PROTOTYPING TEMPLATES

Purpose: To help participants design, build, and document their prototypes during EDUckathons. These templates guide the process from idea to tangible solution.

Prototype Overview



Team Name:



Prototype Title:



Date:

1. Problem Statement

- What user challenge or need does this prototype address?

2. Target Users

- Who will use this solution?

- Key user needs:

-
-
-

3. Prototype Concept

- Short description of your solution:

- Sketch / storyboard / diagram space: [Insert drawing or attach images]

4. Prototype Type

- ☐ Paper mock-up
 - ☐ Storyboard
 - ☐ Role-play / Simulation
 - ☐ Physical model
 - ☐ Digital mock-up
 - ☐ Other: _____
-

5. Materials Used

- List all materials, tools, or software applied:

6. Testing Plan

- Who will test it? _____
- How will it be tested? _____
- What feedback are you looking for? _____

7. Key Learnings & Next Steps

- Main insights from prototyping:

- Improvements for the next version:



8.5. BUDGETING TEMPLATE FOR TRAINERS / EDUCATORS

 **Date:**

 **Budget Period:**

 **Location:**

Prepared by:

Budget Breakdown

NOTES FOR EDUCATORS

Tips



- Always compare **Estimated vs. Actual** costs.
- Allocate at least **5–10% contingency** for unexpected expenses.
- Track **in-kind contributions** (e.g., donated tools, volunteer trainers).
- Use this as both a **planning tool** and an **evaluation tool** after training.

CATEGORY	DESCRIPTION	ESTIMATED COST	ACTUAL COST	NOTES / REMARKS
Training Materials & Supplies	Workbooks, handouts, stationery, consumables, digital resources			
Equipment & Tools	Machines, devices, or VET-specific tools needed for training			
Trainer Fees / Honorarium	Payments to trainers, facilitators, guest lecturers			
Venue & Facilities	Payments to trainers, facilitators, guest lecturers			
Travel & Transportation	Field trips, trainer/learner travel reimbursement			
Catering / Refreshments	Field trips, trainer/learner travel reimbursement			
Licenses / Software	Access to vocational training software, apps, online platforms			
Assessment & Certification	Exam materials, certificates, accreditation fees			
Miscellaneous / Contingency	Emergency costs, unforeseen expenses			

SUMMARY

- **Total Estimated Budget:**
- **Total Actual Budget:**
- **Variance (±):**

BUDGET TRACKING & MONITORING TEMPLATE

 Training Program / Course:

 Trainer / Educator:

 Location / Institution:

 Budget Period: From.....To.....

Expense Log Table

DATE	EXPENSE ITEM	ESTIMATED COST (€)	ACTUAL COST (€)	DIFFERENCE (±)	PAYMENT METHOD	NOTES
01/09/2025	Printing Handouts	Materials & Supplies	50	-3	Cash	Paid at local shop
02/09/2025	Guest Trainer Honorarium	Trainer Fees	200	0	Bank Transfer	Invoice #123
03/09/2025	Safety Gear for Workshop	Equipment & Tools	315	+15	Credit Card	Extra gloves needed
...	...	...	...	...	...	...

Budget Monitoring Dashboard

- Total Estimated Budget: €
- Total Actual Spending: €
- Variance (±): €

Tracking Insights:

- % of budget spent so far:%
- Categories overspending:
- Categories under budget:
- Remaining balance: €

Trainer's Reflection Notes

- What spending areas matched expectations?
- Where did unexpected costs arise?
- What strategies could improve cost-efficiency in future sessions?

 This one is **different** because it's **dynamic**:

- Tracks **daily/weekly expenses** (not just static planning).
- Useful for **reporting to funders, evaluating cost-effectiveness, and reflecting on financial management.**



8.6. DIGITAL TOOLS FOR COLLABORATION

 **Program / Course:**

 **Trainer / Educator:**

 **Institution / Training Center:**

 **Period of Use:** From.....To.....

Tool Selection & Planning Table

CATEGORY	TOOL NAME	PURPOSE / USE CASE	ACCESS METHOD	COST (€)	NOTES
Communication	Microsoft Teams	Video calls, chat, and file sharing	Web/App	Included in Office365	Integrates with Outlook
Project Management	Trello / Asana	Task assignment, progress tracking, deadline reminders	Web/App	Free / Pro	Use for group projects
Collaboration & Docs	Google Workspace	Shared docs, spreadsheets, presentations	Web	Free / Edu	Drive storage up to 15GB free
Brainstorming & Ideas	Miro / Jamboard	Digital whiteboard for group brainstorming	Web/App	Free / Edu	Ideal for design-thinking
File Storage & Sharing	OneDrive / Dropbox	Safe document storage and sharing	Web/App	Depends on plan	Backup training materials
Assessment & Feedback	Mentimeter / Kahoot	Interactive quizzes, polls, learner engagement	Web/App	Free / Edu	Useful for reflection sessions
Scheduling	Google Calendar	Planning sessions, reminders, syncing with learners	Web/App	Free	Link with Gmail
Collaboration Forums	Moodle / Edmodo	Course discussions, Q&A forums, resource sharing	Web/App	Free / Open	Works well in blended learning

Implementation Plan

- **Lead Trainer / Digital Coordinator:**.....
- **Training Needs:** (e.g., communication, teamwork, file sharing, project tracking)
- **Learner Accessibility Considerations:** (devices, connectivity, digital literacy level)
- **Security / Privacy Notes:**.....

Monitoring & Feedback Section

TOOL USED	LEARNER FEEDBACK (1–5)	TRAINER FEEDBACK (1–5)	ISSUES ENCOUNTERED	SUGGESTED IMPROVEMENTS
Teams	4	5	Some login issues	Provide step-by-step guide
Trello	5	4	None	More training for learners
Kahoot	5	5	Needs stable Wi-Fi	Pre-download quizzes

Final Notes



Tips for Trainers/Educators:

- Always **pilot test** tools before full rollout.
- Ensure tools are **mobile-friendly**, since many learners rely on phones.
- Choose tools that allow **offline use** where internet is limited.
- Collect learner **feedback regularly** to adjust tool usage.



8.7. PROTOTYPING MATERIAL

Purpose: To provide a checklist of physical and digital materials that can support hands-on prototyping during EDUckathons.

Basic Physical Materials

- ☐ Paper (A4, flipchart sheets, cardboard)
- ☐ Markers, pens, pencils
- ☐ Sticky notes (various colors)
- ☐ Tape, glue, scissors
- ☐ Recyclable items (bottles, boxes, fabrics, etc.)

Creative & Craft Supplies

- ☐ Colored paper & post-its
- ☐ String, rubber bands, clips
- ☐ Clay, playdough, or modeling foam
- ☐ Small props (toys, figurines, etc.)

Digital Prototyping Tools

- ☐ Canva / Figma (mock-ups, storyboards)
- ☐ Miro / Jamboard (collaborative whiteboards)
- ☐ PowerPoint / Google Slides (concept demos)
- ☐ Simulation software (if available)

Technical / Specialized Tools

- ☐ Basic workshop tools (screwdrivers, pliers, rulers)
- ☐ Laptops or tablets for design/digital mock-ups
- ☐ Projector or large screen for presentations



8.8. EXPERIENTIAL LEARNING TOOLS

Experiential learning is at the heart of EDUckathons. To make the process more intentional and structured, facilitators can provide simple tools that help participants reflect on their experiences, connect them to theory, and apply them in new contexts. This section presents three practical tools: **Reflection Journals**, **Debriefing Guides**, and **Kolb's Cycle Activity Templates**.

EDUCKATHON REFLECTION JOURNAL



"Whether we focus on problematic experiences or positive ones, reflecting on them will provide us with opportunities for growth and development."

- Barbara Bassot, The reflective journal



What is Reflection? Why Do It in an EDUckathon?

Reflection is more than simply looking back at what happened — it is about making sense of experiences, drawing lessons, and applying them to future challenges. Within EDUckathons, reflection ensures that participants do not just “do an activity,” but also turn that activity into meaningful learning that strengthens both professional and personal development.

The main reasons to engage in reflection during an EDUckathon include (Skerrow, n.d.):

Considering the process of learning: Participants reflect on how they learned, aiming to improve their learning process and transfer skills to school, training, or workplace contexts.

Critically reviewing experiences: They analyse specific events or behaviours, such as teamwork, challenges, or outcomes of their efforts.

Building theory from practice: Participants connect observations to broader concepts, applying existing theories or generating their own insights.

Supporting personal and professional growth: Reflection fosters self-awareness, stronger collaboration skills, and readiness for the labour market.

Improving decision-making: Looking back on experiences helps participants make better choices and deal with uncertainty in future EDUckathons or real work situations.

EDUCKATHON REFLECTION JOURNAL

EMOTIONAL CHECK-IN:



Date:



Name:



The Reflection Journal helps you capture what you did, what you learned, and how you can apply it in the future. Use it after each major phase (e.g., Ideation, Prototyping, Testing).

Take 5–10 minutes to write down your thoughts.

HIGHLIGHTS OF THE DAY

My best moment today: _____

Something I am proud of: _____

A skill I used well: _____

Notes:

Key Insights & Ideas

(A space to capture creative thoughts or unexpected learnings to explore later)

WHAT WORKED WELL TODAY?

(teamwork moments, successful solutions)

WHAT CHALLENGES DID I FACE?

(obstacles, teamwork issues, things that didn't go as planned)

HOW CAN I APPLY THIS LEARNING NEXT TIME?

(changes I'd make, strategies to try in future tasks or real work)

EDUCKATHON DEBRIEFING GUIDE

Purpose: To help teams reflect on their learning journey, connect experiences to real-world skills, and prepare for future application (Collard, 2015).

01

SET THE SCENE

- Gather participants in a circle or small groups.
- Remind them: “This is not an evaluation, it’s a safe space to share and learn from each other.”
- Use a quick energiser (e.g., “one word to describe your current mood”).



02

THE REFLECTION FLOW (WHAT – SO WHAT – NOW WHAT)

1. WHAT? (Concrete Experience)

Focus on facts: What happened? What did you do?

- What was today’s challenge or task?
- What stood out during the activity?

 **Facilitator tip:** Use sticky notes or a digital board where each participant writes one key moment.



2. SO WHAT? (Reflective Observation & Abstract Conceptualization)

Focus on meaning: Why does it matter? What did we learn?

- What went well and why?
- What challenges or conflicts did we face, and how did we deal with them?

 **Creative option:** Use “reflection cards” with symbols (e.g., Dixit Cards)



3. NOW WHAT? (Active Experimentation)

Focus on future application: How will we use this learning?

- What would we do differently if we had to repeat the activity?
- How can we apply today’s learning in our training, studies, or future jobs?
- What is one concrete step we will take as a team/individual after the EDUckathon?

 **Creative option:** Ask each team to draw a “learning roadmap”
— one small sketch that shows how they’ll use today’s insights in the future.



03

CLOSING THE DEBRIEF

- Invite each participant to share their “One-word takeaway” (e.g., confidence, creativity, teamwork).
- Optionally, distribute achievement badges (e.g., “Creative Thinker”, “Team Builder”, “Problem Solver”) to celebrate in a fun way.



Facilitator Notes:

- Aim for 15–30 minutes depending on group size.
- Engage, don’t lecture: Ask participants open questions instead of telling them what to think.
- Stay neutral: React without judgment (instead of “Great answer!” try “Thank you for sharing”).

EDUCKHATON KOLB'S CYCLE REFLECTION TEMPLATE

 Date:

 Name:

 Activity/Phase:

Kolb's Experiential Learning Cycle has four stages.
Use this template to reflect and make your learning transferable.



1 CONCRETE EXPERIENCE: WHAT DID WE DO?

Describe today's activity or challenge:

What actions did our team take?

What was my role in the process?



2 REFLECTIVE OBSERVATION: WHAT HAPPENED AND HOW DID IT FEEL?

What worked well?

What was challenging?

How did I/we feel during this activity?



3 ABSTRACT CONCEPTUALIZATION: WHAT DID WE LEARN?

What insights or lessons can I take?

What skills did I use or develop?

How does this connect to vocational practice or real work situations?



4 ACTIVE EXPERIMENTATION: HOW WILL I APPLY THIS?

What would I do differently next time?

How can I apply what I learned in future

One concrete action I will take forward:

9. APPENDICES

9.1 GLOSSARY OF TERMS

- 1. Andragogy:** A theory of adult learning that emphasizes self-direction, personal experience, problem-solving, and internal motivation.
- 2. Conceptualization:** The process of forming ideas, theories, or principles based on reflection and analysis, often following practical experiences.
- 3. Convergent:** A thinking process focused on narrowing down options, selecting, and refining the most promising ideas (like Prototyping).
- 4. Debriefing:** A structured reflection session after an activity, where participants review what happened, what they learned, and how they can improve.
- 5. Design Thinking:** A creative, structured method for solving problems by focusing on user needs, involving phases such as empathize, define, ideate, prototype, and test.
- 6. Divergent:** A thinking process that encourages generating many different ideas and exploring multiple possibilities without immediate judgment.
- 7. EDUckathon:** A team-based educational event, inspired by hackathons, where participants use Design Thinking to solve real-world challenges in vocational education and training (VET).
- 8. Empathize:** The first phase of Design Thinking, focused on understanding users' needs, challenges, and emotions through observation, interviews, and mapping.
- 9. Experiential Learning:** A teaching method of “learning by doing,” where learners gain knowledge through direct experience, reflection, and application.
- 10. Focus Groups:** Small, guided discussion groups used to gather insights, perspectives, or feedback from participants on a specific topic or challenge.
- 11. Game-based Learning (GBL):** An approach where learners actively gain knowledge and skills by playing or working within an educational game environment.
- 12. Gamification:** The use of game elements such as points, badges, or leaderboards in non-game contexts to increase engagement and motivation.
- 13. Hackathon:** An intensive, time-limited event where participants collaborate to develop innovative solutions, usually in the fields of technology or design.

- 14. Heutagogy:** A learner-centred approach that goes beyond andragogy, focusing on self-determined learning where learners define their own goals and paths.
- 15. Ideate:** A Design Thinking phase where participants generate a wide range of ideas through brainstorming, mind mapping, or other creative techniques.
- 16. Iteration:** The process of refining ideas or solutions by repeating cycles of testing, feedback, and improvement.
- 17. Stakeholder:** An individual, group, or organisation with an interest in or influence on a project, activity, or outcome.
- 18. Team HQ (headquarters) Spaces:** Designated physical or virtual spaces where teams collaborate to brainstorm, share, and develop solutions.
- 19. Transversal Skills:** Transferable abilities such as teamwork, communication, problem-solving, and adaptability, which are valuable across professions and contexts.
- 20. VET (Vocational Education and Training):** Education and training programs that prepare learners for specific jobs, occupations, or careers by combining practical and theoretical learning.

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