

ERF: 3. SCIENCE AND TECHNOLOGY

DIMITRA Education & Consulting

Duration: 6 hours



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Project Consortium

Coordinator:



Partners:



Project Details

Title: “Joint Development, Piloting, and Validation of Entrepreneurial Mindset and Key Skills Curricula and Training Materials for Third Countries”

Acronym: EMSA (Entrepreneurial Mindset and Skills for All)

Agreement Number: 101092477 – EMSA – ERASMUS-EDU-2022-CB-VET

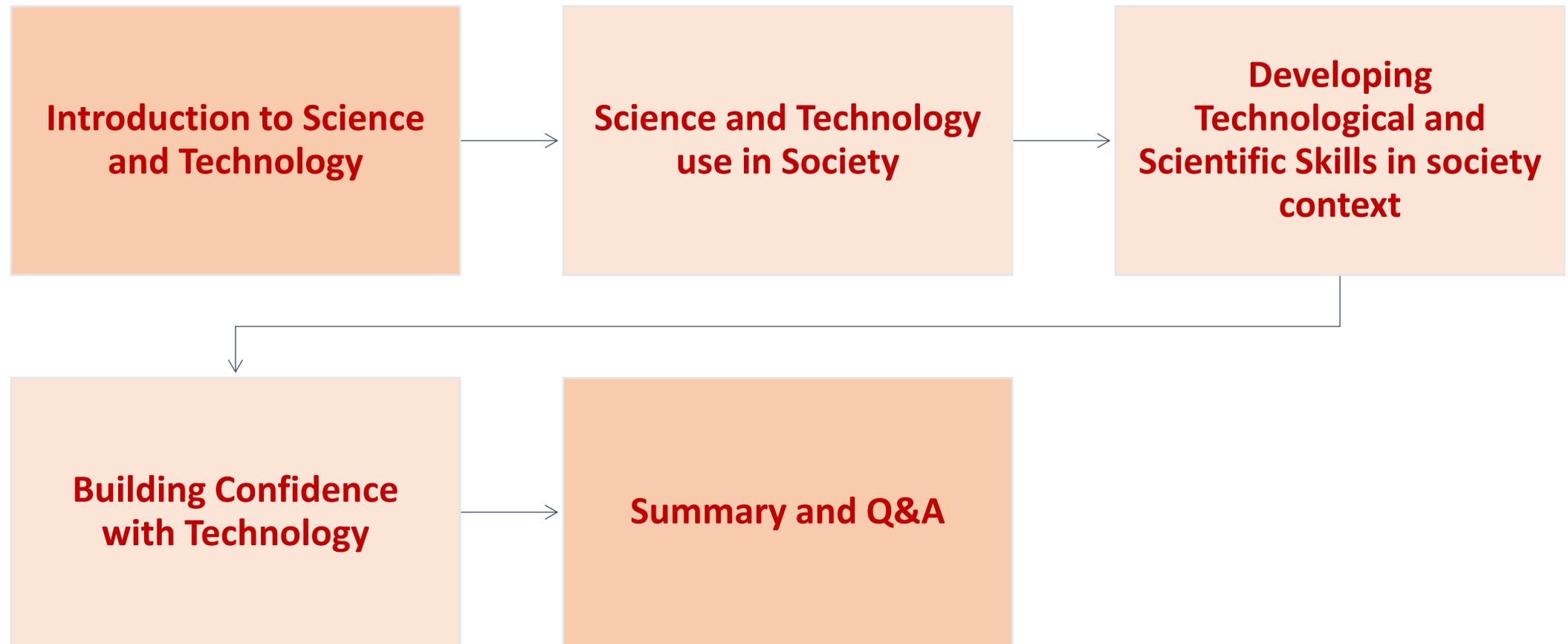
Programme: Erasmus+ Capacity Building in the Field of Vocational Education and Training (VET)

Call for Proposals: ERASMUS-EDU-2022-CB-VET

Start Date: 01.01.2023

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Training Route Map



Science and Technology

Training Aim

The aim of this lesson is to empower participants to engage confidently with technology by building both practical skills and a positive mindset. It explores the transformative role of science and technology in society and provides strategies to overcome common anxieties related to tech use. Through understanding the benefits of technology, developing a resilient attitude toward learning new tools, and setting achievable goals, participants will gain the confidence needed to leverage technology in their personal and professional lives.



Descriptor

Learning

Outcomes

In terms of **knowledge**:

- ✓ *Recognize the impact of science and technology on individual empowerment and societal advancement*

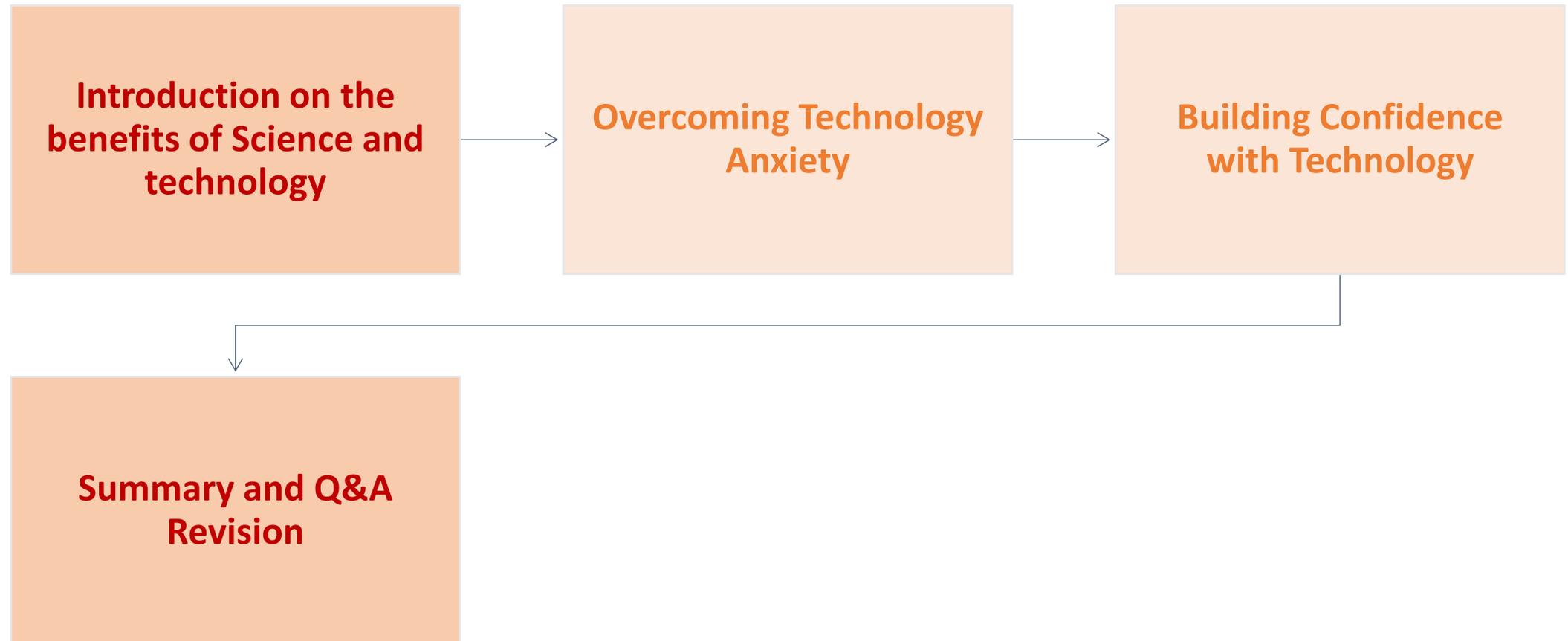
In terms of **skills**:

- ✓ *Apply strategies to overcome technology-related anxiety by engaging with user-friendly tools and utilizing available digital resources effectively to build confidence in technology use.*

In terms of **attitudes**:

- ✓ *Take initiative in setting personal goals for technology skill development, seek guidance or support when needed, and maintain a positive approach*

Training Route Map



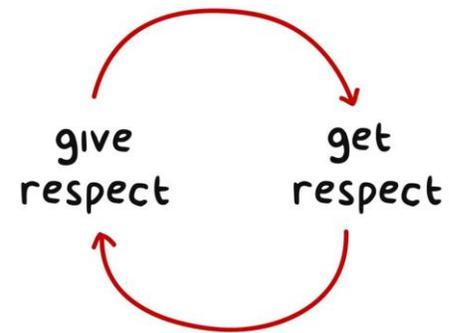
The competence in Science and Technology involves understanding the basic principles, methods, and applications of scientific knowledge and technological innovation, and recognizing their impact on society. It also includes an awareness of the ethical, and social implications of technological advancements, encouraging responsible and informed decision-making.

**What ERF
competence
is our training about?**

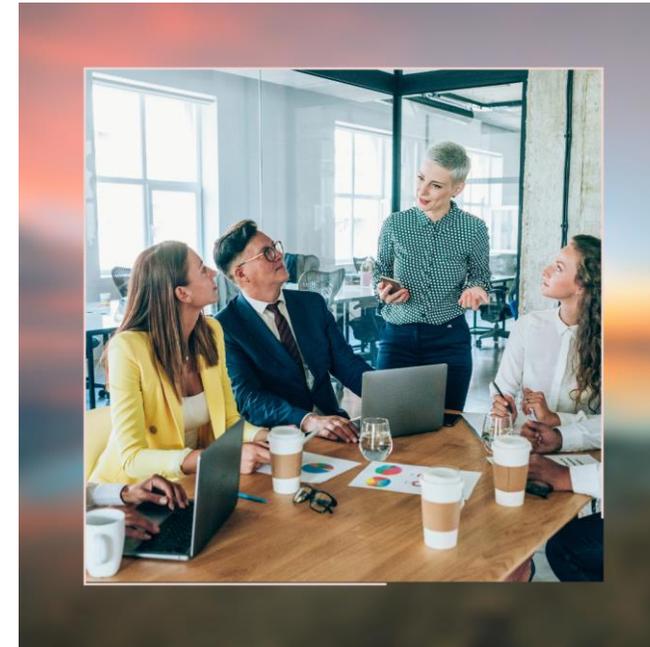
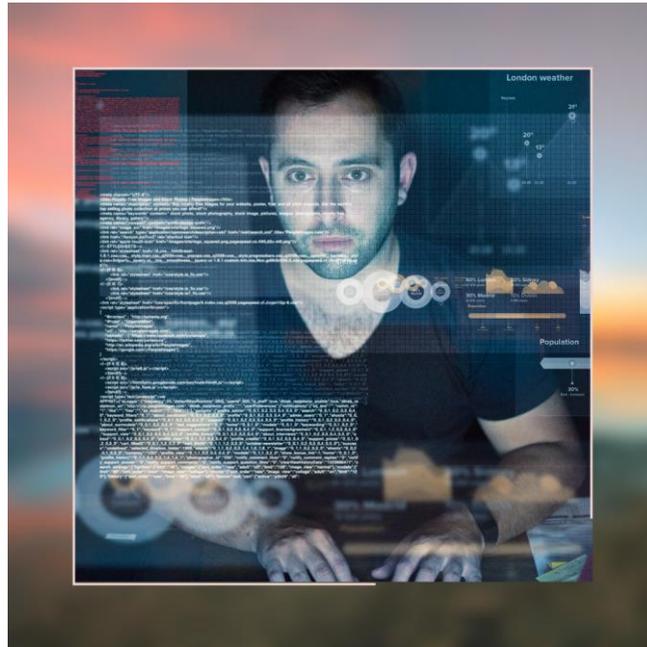
Training Rules



Participation

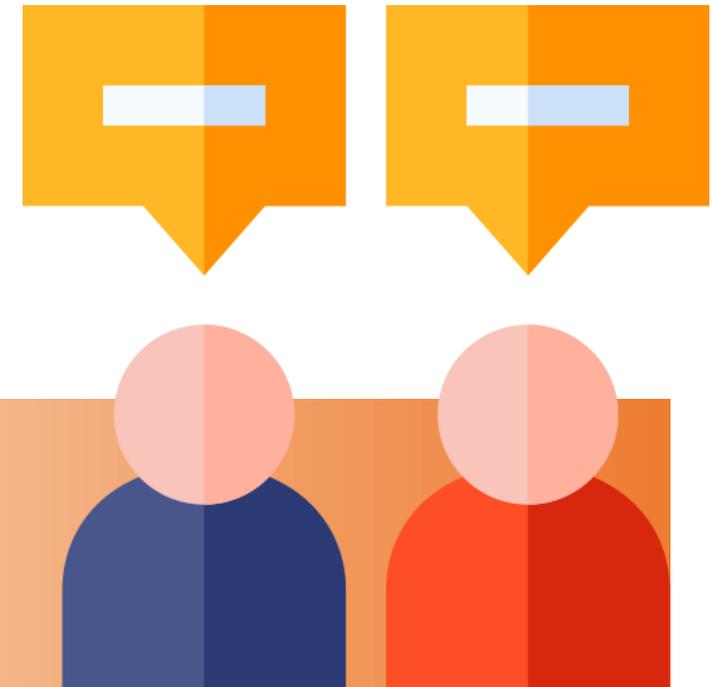


**YOUR
OPINION
MATTERS**



MT2.1_1 Reflect on the most important skills—**Proficient with Technology** and **Positively interact with people**
Choose one skill between these two and share your perspectives on why did you select this skill.

Ice-breaking Activity



Introductions

Let's get to know each other!



"A positive mindset is the foundation of resilience; it turns obstacles into opportunities and challenges into growth, empowering us to achieve our fullest potential."

Introduction on the benefits of Science and technology

Benefits of Science and technology

Science and technology bring transformative benefits that drive progress across virtually every sector.

One of the most impactful benefits is the ability to solve complex problems more effectively.

Science offers structured methods for investigating and understanding natural and societal challenges, from climate change to healthcare, and technology provides the tools to implement solutions.

Benefits of Science and technology

In business and industry, science and technology significantly enhance productivity and innovation.

By automating routine tasks, optimizing processes, and analyzing vast amounts of data, technology helps organizations improve efficiency and reduce costs.

Companies that leverage scientific methods and technological tools can better understand market trends, streamline production, and create products that meet specific consumer needs.

Benefits of Science and technology

Science and technology also play a crucial role in improving quality of life.

Advances in healthcare technology, such as diagnostic tools, minimally invasive surgical techniques, and telemedicine, have made medical services more accessible and effective, leading to longer and healthier lives.

Technology has also transformed education by making learning resources available online, breaking down geographical and economic barriers.

Benefits of Science and technology

Finally, science and technology are essential for fostering sustainable development.

The synergy between science and technology allows us to address today's environmental and social challenges with sustainable, innovative solutions that benefit both current and future generations.

Benefits of Science and technology

While the benefits of science and technology are vast, many people still experience hesitation or fear regarding their rapid advancement.

Concerns about privacy, job displacement, and ethical implications often overshadow the positive impacts for some individuals. Finally, science and technology are essential for fostering sustainable development.

Benefits of Science and technology

This hesitation is compounded by the complexity of new technologies, which can feel inaccessible or overwhelming for those without a technical background.

As a result, while technology holds great promise, its rapid evolution brings challenges in trust, accessibility, and adaptation that society must address to ensure its benefits are experienced inclusively and responsibly.

Topic 1. Overcoming Technology Anxiety

Technology causing anxiety

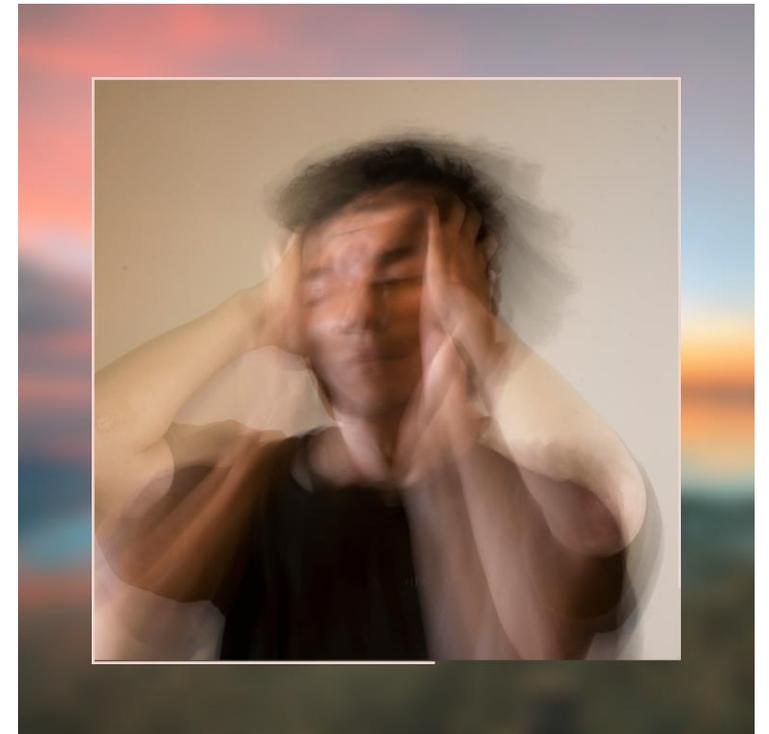
Technology anxiety is a common issue in today's fast-evolving digital world, where new technologies seem to emerge at a pace that's difficult to keep up with.

This anxiety often stems from fears of complexity, data privacy, job security, and even potential social disconnection, as people feel pressured to integrate unfamiliar tools and systems into their daily lives.

Technology causing anxiety

For many, technology represents a barrier rather than a facilitator, a concept that can be intimidating to navigate due to a lack of understanding or technical background.

One major reason for technology anxiety is the perceived complexity of new tools and systems.



Technology causing anxiety

Privacy and data security are also key concerns that contribute to technology anxiety.

People are increasingly aware of how their personal information can be collected, stored, and sometimes misused by companies, leading to fears about digital privacy and control over personal data.



Technology causing anxiety

Job displacement is another common fear associated with technology, especially with the rise of automation and artificial intelligence.

Many worry that machines will replace their roles, leading to job loss and a sense of uncertainty about the future.



Technology causing anxiety

Social and psychological concerns also contribute to technology anxiety, as some people fear that increased reliance on digital devices may lead to isolation or a sense of detachment from real-world interactions.

With the rise of remote work and digital communication, individuals can feel isolated and disconnected.



Video Analysis

MT2.3_2

Jared from "State of Tech" reflects on the relationship between technology and anxiety, particularly through his experience of switching from an iPhone to a Galaxy Note 20 Ultra.

Review the video and answer to the related questions



Ways to deal with anxiety in Technology

For many, technology represents a barrier rather than a facilitator, a concept that can be intimidating to navigate due to a lack of understanding or technical background.

Acknowledging the reasons behind this anxiety is the first step in addressing it, and fortunately, there are several effective ways to ease fears and build confidence in interacting with technology.

Ways to deal with anxiety in Technology

Anxiety in technology can be overcome by focusing on accessible training and gradual exposure.

Many organizations now provide user-friendly tutorials, step-by-step guides, and beginner courses, which help break down complex processes into manageable steps.

Familiarity builds comfort, and with repeated practice, even those unfamiliar with technology can become proficient users.

Ways to deal with anxiety in Technology

Data security anxiety can be mitigated by becoming informed about basic digital security practices, such as creating strong passwords, using two-factor authentication, and understanding privacy settings on various platforms.

Many people find that when they have a clearer understanding of how to protect their data, they feel more in control and less vulnerable.

Additionally, companies now help by prioritizing transparency in their data collection and privacy policies, offering users reassurance about the safety of their personal information.

Ways to deal with anxiety in Technology

To overcome the anxiety of misplacement, individuals and organizations can focus on reskilling and upskilling.

By investing in continuous learning and embracing technology as a tool rather than a threat, workers can enhance their capabilities and become more adaptable in the job market.

Organizations that support their employees through training programs and new skill development initiatives help ease fears by showing that technology can create opportunities, not just challenges.

Ways to deal with anxiety in Technology

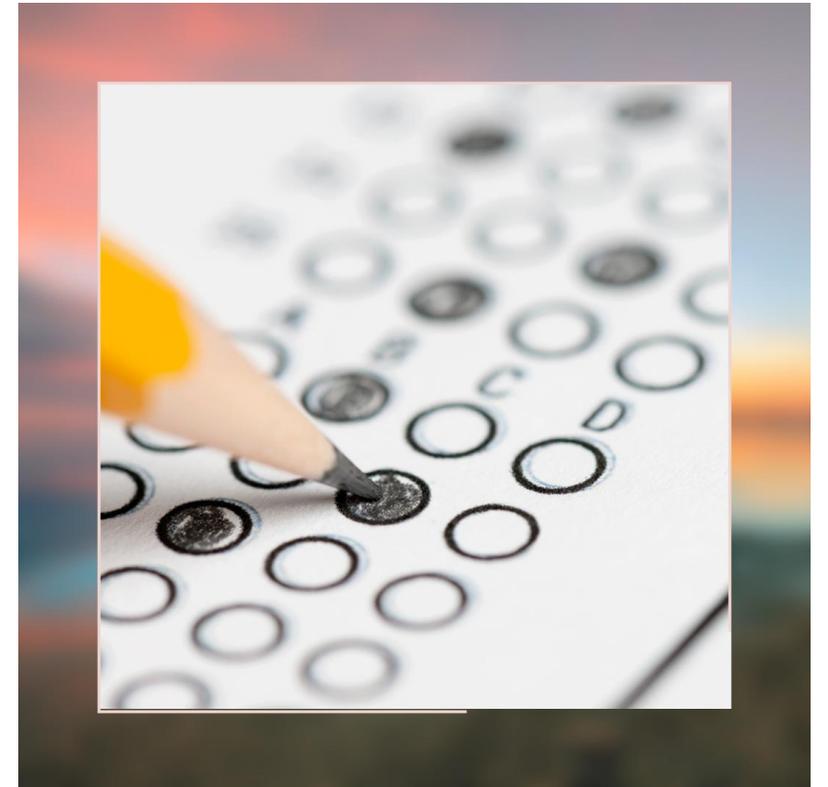
Last but not least, address fears of psychological and social matters, it is essential to maintain a balance between online and offline activities, promoting digital well-being.

Setting boundaries on screen time, actively seeking face-to-face interactions, and practicing mindful engagement with technology can help people experience the benefits of digital tools without sacrificing social connections.

Multiple Choice Questions

MT2.3_3

This activity involves a multiple-choice quiz designed to help you define what aspects of technology are causing anxiety and the various ways to deal with it



Topic 2. Building Confidence with Technology

Building Confidence with Technology

Technology confidence can be defined as the ability to engage with technology without hesitation, feeling capable and secure in one's actions.

It's about developing a mindset that empowers individuals to explore, learn, and solve problems with technology, even when they are not initially familiar with a particular tool or device.



Building Confidence with Technology

Building confidence with technology is increasingly important as digital skills are essential for both personal growth and professional success in today's world.



Why Self-Confidence in Technology Matters

Self-confidence in technology use matters on multiple levels.

On a **personal level**, it allows individuals to grow and learn more efficiently. When people are confident in their technological skills, they are more likely to embrace learning opportunities and try out new tools and apps, which expands their digital literacy over time.



Why Self-Confidence in Technology Matters

Professionally, tech confidence is increasingly crucial for career advancement, as most industries now require some level of tech competence.

Those who are comfortable with technology can leverage it for productivity, problem-solving, and communication, making them more competitive in the job market.

Building Self-Confidence in Technology

Building self-confidence in technology begins with small, manageable steps. Starting small by focusing on easy-to-use tools or simple tasks can help individuals gradually build familiarity without feeling overwhelmed.

This approach makes learning new technology less intimidating and fosters a sense of accomplishment.

Building Self-Confidence in Technology

Consistent practice is essential: regular exposure to tech tools and environments reinforces familiarity and builds comfort. Just as with any skill, repeated interaction with technology reduces hesitation and instills a sense of control.

Another effective technique is to celebrate small wins. Recognizing progress, no matter how minor, helps build confidence by validating one's abilities and reinforcing the mindset that improvement is possible.

Strategies to Improve Tech Confidence

Several strategies can support the development of tech confidence, each centered around active engagement and problem-solving.

- **Hands-on learning** is one of the most effective methods, as it allows individuals to practice in a safe, supportive environment, making learning more tangible and less theoretical.

When people can physically interact with tech tools, they gain practical experience and see immediate results, which reinforces learning.

Strategies to Improve Tech Confidence

- Seeking resources, such as online tutorials, classes, and support groups, is another beneficial approach. Numerous platforms offer instructional materials tailored for all skill levels, helping individuals learn at their own pace.

Additionally, a problem-solving approach to technology use can be transformative. Learning to troubleshoot independently, instead of giving up at the first sign of difficulty, fosters resilience.

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Developing a Positive Tech Mindset

Developing a positive tech mindset involves cultivating a perspective that welcomes growth and sees challenges as learning opportunities. Adopting a growth mindset in technology means embracing the idea that skills can improve with effort and that mistakes are part of the learning process.

Developing a Positive Tech Mindset

Adaptability is another crucial component, given the ever-evolving nature of technology.

- **Staying open** to new developments, even if they initially seem complex or unfamiliar, ensures that individuals remain flexible and willing to learn, which is crucial for keeping up with technological advancements.

Developing a Positive Tech Mindset

Lastly, open-mindedness plays a vital role. Rather than dismissing new tools or approaches as too difficult or unnecessary, an open-minded approach encourages individuals to explore, experiment, and integrate new technology into their daily lives.

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Practical Tips for a Positive Tech Mindset

Developing a positive mindset toward technology often begins with practical, actionable steps. Here are three key strategies that help foster a constructive and empowered approach to tech use:

- Set Personal Goals
- Seek Support
- Stay Updated

Practical Tips for a Positive Tech Mindset

Set Personal Goals

Setting specific, achievable goals is a powerful way to build confidence and maintain motivation in learning technology. By identifying and focusing on particular skills you'd like to develop, you create a roadmap that makes progress tangible and allows you to celebrate milestones.

Practical Tips for a Positive Tech Mindset

Seek Support

Learning alongside others or seeking guidance from more experienced users can be incredibly beneficial in building a positive tech mindset.

Collaborating with peers or mentors offers a sense of community and provides immediate support when you encounter challenges.

For instance, joining a local tech workshop or online community dedicated to a specific tool (like Adobe Photoshop or Google Analytics) allows you to share experiences, ask questions, and receive feedback in real-time.

Practical Tips for a Positive Tech Mindset

Stay Updated

With technology constantly evolving, staying current with new tools and trends helps to maintain confidence and adaptability. By regularly exploring and experimenting with new tools, you become familiar with a broader range of technology and keep your skills relevant.

Practical Tips for a Positive Tech Mindset

In conclusion, building confidence in technology and cultivating a positive tech mindset are transformative steps that empower individuals to engage with the digital world proactively and fearlessly.

By setting achievable goals, seeking support from others, and staying updated with new tools, we can gradually break down barriers to technology use, fostering both competence and enthusiasm.

Multiple Choice Questions

MT:2.3_4

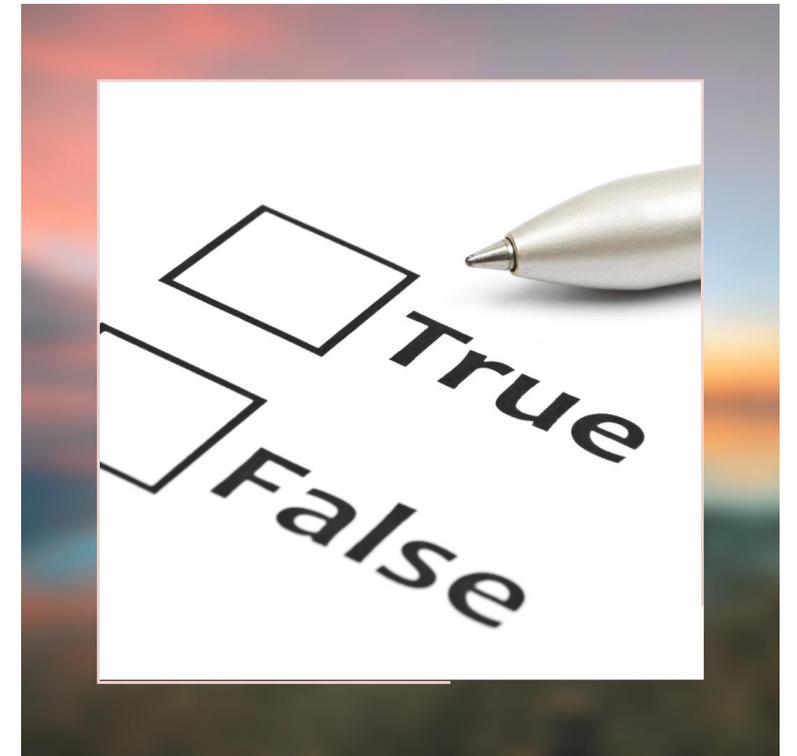
Multiple Choice questions on building confidence with technology



True or False

MT:2.3_5

True or False Questions based on the whole unit lesson.

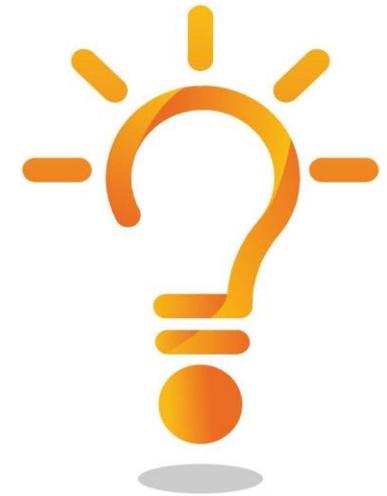




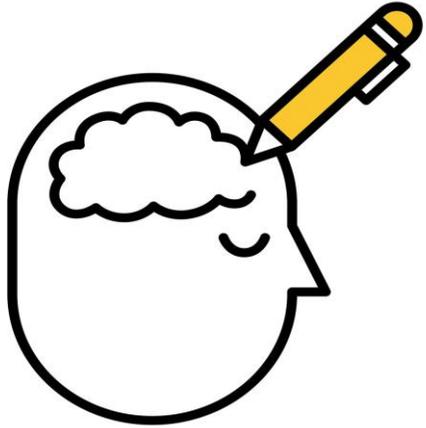
Revision

A horizontal bar with a gradient from light orange on the left to a darker orange on the right, positioned below the word "Revision".

- ✓ Recognize how science and technology drive innovation, enhance productivity, and improve quality of life across personal, professional, and societal levels.
- ✓ Address common tech-related fears by gradually engaging with user-friendly tools, practicing digital safety, and adopting a mindset focused on growth and adaptability. Real-world.
- ✓ Set achievable tech goals, practice consistently, and seek support when needed to steadily increase confidence and competence in technology use.



Do you have any questions?



What will you keep from
today's training?

Training Evaluation

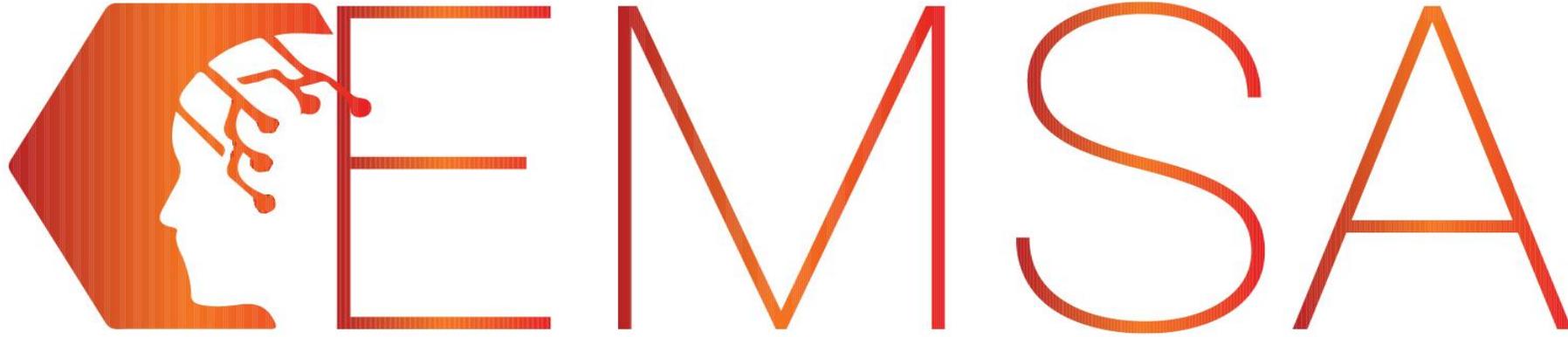


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- **Compeau, D. R., & Higgins, C. A. (1995).** Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189-211.
- **Zimmerman, B. J. (2000).** Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82-91.

List of Suggested Resources for Self-Directed Learning

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- **Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2016).** Aligning the organization for its digital future. *MIT Sloan Management Review*.



Entrepreneurial Mindset and Key Skills for All

Thank you!



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