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Upgrading pre- and in-service teachers' digital skills
with online STEAM hands-on training modules

Self-Assessment Survey

Combining Digital Competence Development with STEAM Education Practices

Note: This self-assessment survey is intended to gauge your current practice in combining digital competence development with STEAM education practices. Please answer honestly based on your own self-reflection and awareness.

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

1 - STRONGLY DISAGREE

2 - DISAGREE

3 - NEITHER AGREE NOR DISAGREE

4 - AGREE

5 - STRONGLY AGREE

Please rate your level of agreement for each statement:

1. I actively collaborate with other educators to share knowledge, experiences, and resources related to digital competence development and STEAM education practices.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Actively collaborate with other educators: If you rated yourself lower than 4 on this statement, consider reaching out to fellow educators, joining professional networks or communities, and actively sharing knowledge, experiences, and resources related to digital competence development and STEAM education practices.

2. I engage in reflective practice to critically assess and improve my digital pedagogical practices in STEAM education.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Engage in reflective practice: If you rated yourself lower than 4 on this statement, make a conscious effort to engage in reflective practice. Regularly assess your digital pedagogical practices in STEAM education, critically analyze their effectiveness, and identify areas for improvement.

3. I participate in digital professional communities and utilize online sources and resources for continuous professional development in the areas of digital competence and STEAM education.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Participate in digital professional communities: *If you feel you could benefit from more involvement in digital professional communities and online resources, seek out relevant communities, forums, or platforms, interest groups in the social media groups where educators discuss digital competence and STEAM education. Utilize these sources for continuous professional development and to stay updated on the latest trends and practices.*

4. I am able to effectively select, create, modify, manage, protect, and share digital resources for STEAM education, considering factors such as credibility, copyright, and usefulness.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Improve digital resource management: *If you find it challenging to effectively select, create, modify, manage, protect, and share digital resources for STEAM education, invest time in enhancing your skills in these areas. Consider attending workshops or training sessions on copyright, credibility, and usefulness of digital resources.*

5. I possess competences in selecting, manipulating, and integrating non-digital resources into my digital teaching practice for STEAM education.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Enhance non-digital resource integration: *If you feel less competent in selecting, manipulating, and integrating non-digital resources into your digital teaching practice, explore strategies and techniques for integrating physical materials, hands-on activities, and non-digital resources into your STEAM lessons. Look for ways to combine them seamlessly with digital technologies.*

6. I design and implement lessons that incorporate digital technologies to reinforce STEAM learning objectives, create digital learning environments, and experiment with new instructional methods.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Experiment with instructional methods: *If you scored lower on designing and implementing lessons that incorporate digital technologies to reinforce STEAM learning objectives, create digital learning environments, and experiment with new instructional methods, try exploring innovative tools, platforms, or approaches that can enhance student engagement and achievement in STEAM subjects.*

7. I effectively use digital technologies to provide guidance and support to students in STEAM education, such as responding to questions, monitoring behavior, and offering timely assistance

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Utilize digital technologies for student support: *If you feel you could improve your use of digital technologies to provide guidance and support to students in STEAM education, consider exploring digital communication channels, online platforms, or learning management systems to respond to questions, monitor student behavior, and offer timely assistance.*

8. I utilize digital technologies for formative and summative assessment in STEAM education, analyzing digital evidence of student activity and performance to inform teaching and learning.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Expand assessment practices with digital technologies: *If you rated yourself lower on utilizing digital technologies for formative and summative assessment in STEAM education, explore various digital assessment tools, platforms, or applications that can help you analyze digital evidence of student activity and performance, providing valuable insights to inform teaching and learning.*

9. I actively engage learners through the use of digital technologies in STEAM education.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Actively engage learners through digital technologies: If you indicated a lower level of agreement with actively engaging learners through the use of digital technologies in STEAM education, consider exploring interactive digital tools, simulations, virtual reality, or online collaborative platforms to enhance student engagement, motivation, and participation.

10. I differentiate and personalize STEAM learning experiences to address learners' diverse needs.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Differentiate and personalize STEAM learning experiences: If you feel you could improve in differentiating and personalizing STEAM learning experiences to address learners' diverse needs, explore adaptive learning technologies, personalized learning platforms, or differentiated instructional strategies to cater to individual student strengths, interests, and learning preferences.

11. I foster learners' active and creative engagement with STEAM subjects by employing suitable digital technologies.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Foster active and creative engagement with digital technologies: If you scored lower on fostering learners' active and creative engagement with STEAM subjects by employing suitable digital technologies, explore innovative digital tools, coding platforms, creative design software, or multimedia applications that can spark student creativity, critical thinking, and problem-solving skills.

12. I facilitate learners' digital competence development by incorporating activities focused on information and media literacy, digital communication and collaboration, digital content creation, responsible use of digital technologies, and digital problem-solving.

1 Strongly Disagree

2 Disagree

3 Neither agree nor disagree

4 Agree

5 Strongly Agree

Incorporate activities for digital competence development: If you feel there is room for improvement in facilitating learners' digital competence development, incorporate activities focused on information and media literacy, digital communication and collaboration, digital content creation, responsible use of digital technologies, and digital problem-solving. Explore resources and strategies to embed these skills within your STEAM lessons.

Please provide any additional comments or examples related to your responses:

Thank you for completing the survey! Your feedback will help assess your current practices in combining digital competence development with STEAM education. By implementing these recommendations, you can enhance your practice of combining digital competence development with STEAM education and provide more engaging and effective learning experiences for your students.

