**Instructional Technology Use in the Classroom**

**Part 2: Agenda**

**Canva, Kahoot, ChatGPT**

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## About STEM and STEAM

Science, Technology, Engineering, and Mathematics refers to an interdisciplinary approach to education that integrates these subjects. STEM education prepares students for careers in fields such as engineering, computer science, and biotechnology, which are in high demand and require advanced skills.

To succeed in these fields, STEM education teaches students critical thinking and problem-solving skills, as well as a strong foundation in these disciplines. STEM education also emphasizes the development of practical skills and the application of knowledge to real-world problems through hands-on, project-based learning.

It is expected that the demand for STEM workers will continue to grow in the coming years as the world becomes increasingly technologically driven. Many of the fastest-growing and highest-paying jobs require a strong foundation in STEM subjects, such as data analytics, software development, and cybersecurity.

As part of STEM education, STEAM has emerged as a means of integrating the arts. In these fields, STEAM emphasizes the importance of creativity and innovation. Arts integration can help students develop their creativity and communication skills, as well as their ability to think outside the box and solve complex problems.

Providing STEM and STEAM instruction prepares students for the jobs of tomorrow, which will require advanced skills in these fields. Teachers can ensure their students are prepared for success in a rapidly changing world and that they are equipped with the skills they need to compete in the global marketplace by providing a strong STEM and STEAM foundation.

## Learning outcomes

| # | Learning outcome | ITSE standards | BC Digital Literacy |
| --- | --- | --- | --- |
| 1 | Create interactive multimedia lessons that engage participants and enhance learning outcomes through the use of multimedia elements. | * ISTE Standard for Educators: Design for Learning | * Digital Communication and Collaboration: Use technology tools to communicate and collaborate with others. |
| 2 | Use technology-based assessments to measure learning and engagement, and analyze the results to improve student learning outcomes. | * ISTE Standard for Educators: Teaching, Learning, and Assessment | * Digital Communication and Collaboration: Use technology tools to communicate and collaborate with others. |
| 3 | Design gamification strategies to increase motivation and engagement among students and assess their effectiveness using formative assessments. | * ISTE Standards for Educators: Design for Learning and Professional Development and Program Evaluation | * Digital Thinking: Use technology tools to solve problems and think critically. |
| 4 | Analyze student performance using data analytics tools to monitor progress and adjust teaching strategies to improve learning outcomes. | * ISTE Standards for Educators: Teaching, Learning, and Assessment and Digital Citizenship | * Digital Thinking: Use technology tools to solve problems and think critically. |
| 5 | Utilize AI language models to provide personalized feedback on student writing and assess their impact on student learning outcomes. | * ISTE Standards for Educators: Design for Learning and Digital Citizenship | * Digital Thinking: Use technology tools to solve problems and think critically. |
| 6 | Identify ethical considerations and potential risks associated with using technology in the classroom and develop strategies to mitigate those risks while ensuring equitable access for all participants. | * ISTE Standards for Educators: Teaching, Learning, and Assessment and Professional Development and Program Evaluation | * Digital Access: Ensure equitable access to technology tools for all participants. * Digital Citizenship: Develop awareness of ethical and responsible use of technology. |
| 7 | Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments. | * ISTE Standards for Educators: Design for Learning and Professional Development and Program Evaluation | * Digital Literacy: Develop the skills to use technology effectively and efficiently. |

## Learning outcomes and BC Digital Literacy

The learning outcomes are related to various components of the BC Digital Literacy Framework, such as digital access, communication and collaboration, digital citizenship, digital thinking, and digital literacy. By incorporating these learning outcomes into teaching and learning practices, educators can help students develop essential digital literacy skills that will prepare them for success in the digital age.

## Learning outcomes and ISTE standards

Here's a brief explanation of how each learning outcome aligns with the corresponding ISTE standard:

1. Create interactive multimedia lessons that engage participants and enhance learning outcomes through the use of multimedia elements.

Aligned with ISTE Standard for Educators: Design for Learning. Using technology to create interactive and multimedia-rich lessons can provide engaging, personalized, and learner-centred experiences that promote student agency, knowledge construction, and digital citizenship.

1. Use technology-based assessments to measure learning and engagement and analyze the results to improve student learning outcomes.

Aligned with ISTE Standard for Educators: Teaching, Learning, and Assessment. Using technology to support assessment practices can enhance the efficiency, accuracy, and effectiveness of assessment, providing timely feedback to students and informing instructional decision-making to promote student growth and achievement.

1. Design gamification strategies to increase motivation and engagement among students and assess their effectiveness using formative assessments.

Aligned with ISTE Standards for Educators: Design for Learning and Professional Development and Program Evaluation. Using gamification strategies can promote student motivation, creativity, and problem-solving skills, while formative assessments can provide feedback on student learning progress and inform future instruction.

1. Analyze student performance using data analytics tools to monitor progress and adjust teaching strategies to improve learning outcomes.

Aligned with ISTE Standards for Educators: Teaching, Learning, and Assessment and Digital Citizenship. Using data analytics can help teachers to monitor student progress, evaluate the effectiveness of instruction, and personalize learning experiences, while also promoting ethical and responsible use of student data.

1. Utilize AI language models to provide personalized feedback on student writing and assess their impact on student learning outcomes.

Aligned with ISTE Standards for Educators: Design for Learning and Digital Citizenship. Using AI language models can provide personalized and practical feedback to students, promoting critical thinking and communication skills while also ensuring the ethical and responsible use of AI and language models.

1. Identify ethical considerations and potential risks associated with using technology in the classroom and develop strategies to mitigate those risks while ensuring equitable access for all participants.

Aligned with ISTE Standards for Educators: Teaching, Learning, and Assessment and Professional Development and Program Evaluation. Understanding the ethical and social implications of technology use in education and developing policies and practices that promote equity, privacy, and security are essential for promoting digital citizenship and fostering a safe and inclusive learning environment.

1. Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments.

Aligned with ISTE Standards for Educators: Design for Learning and Professional Development and Program Evaluation. Demonstrating proficiency in using technology tools can help to create engaging, interactive, and learner-centred environments that promote student agency, knowledge construction, and digital citizenship while evaluating the effectiveness of technology integration can inform future instructional decisions and promote continuous improvement.

## Diverse participants

By offering multiple modalities of instruction, encouraging collaboration and communication, providing personalized feedback, identifying and addressing learning gaps, incorporating culturally responsive teaching, and ensuring equitable access to technology, the PD is designed to support diverse participants. Diverse participants can be supported in several ways by the PD:

1. Providing multiple modalities of instruction: With Engaging Multimedia Lessons, instructors can cater to participants with diverse learning styles, including visual and auditory. Different methods of accessing the same content can make it more accessible to participants with varied abilities and learning preferences.
2. Encouraging collaboration and communication: Communication and collaboration can be facilitated by instructors using technology tools. Students who feel shy or introverted can benefit from participating in class discussions and connecting with their classmates.
3. Offering personalized feedback: With Personalized Feedback, instructors can provide feedback tailored to each learner's strengths and weaknesses, which can help them improve their skills and confidence.
4. Identifying and addressing learning gaps: Technology-based assessment tools and data analytics can help teachers identify and adjust their teaching strategies to meet participants' needs.
5. Incorporating culturally responsive teaching: Culturally responsive teaching strategies acknowledge and value participants' diverse backgrounds, experiences, and perspectives. The learning process can be made more interesting and engaging for participants if this is done.
6. Ensuring equitable access to technology: Teachers can promote Digital Access by providing all participants with the technology tools they need to participate in class. It involves providing participants access to technology both in the classroom and outside.

By incorporating these strategies, instructional technology PD can support diverse participants and promote inclusive and effective teaching practices.

## Professional development sessions:

We have developed a five-session in-person training program, with each session lasting two hours and ten minutes and a twenty-minute break. The session chart includes information such as seat time, description, materials, resources, and activities that must be completed step by step during the session. Each chart's items are listed here, along with a brief explanation of each. By completing our program, we hope to enhance your teaching practices and student learning outcomes. Let's dive in and explore each session in detail.

1. Title: Descriptive and concise session title.
2. Description: Brief overview of the session's content and purpose.
3. Learning Objectives: Clear statement of intended learning outcomes for the session.
4. Participatory Learning: Active and collaborative learning strategies to engage participants.
5. Materials: The session materials include technology tools and resources.
6. Instructor Activities: Step-by-step guide to instructor actions and responsibilities.
7. Learner Activities: Specific activities for participants to engage in during the session.
8. Lesson Resource: Supplementary materials or resources to support the session's content.
9. Post-Assessment: Assessment strategies to evaluate participants' learning outcomes and session effectiveness.

| **Session 1** | | | | |
| --- | --- | --- | --- | --- |
| Title: Introduction, Overview, and Ethical Considerations/Inclusive Practices | | | | Duration:  2h 10m |
| Description: Introduce the learning objectives of the PD, provide an overview of the session, discuss ethical considerations and potential risks associated with using technology in the classroom, and develop strategies for mitigating those risks while ensuring equitable access for all participants. | | | | |
| Learning Objectives   * Identify ethical considerations and potential risks associated with using technology in the classroom and develop strategies to mitigate those risks while ensuring equal access for all participants. | | | | |
| Participatory Learning   * Small group activities where participants work together to identify and develop strategies for addressing ethical considerations and risks associated with technology use | | Materials   * Projection equipment * Grouping materials, including small-group tables or chairs * Computer or mobile device * Internet access * Presentation materials * Whiteboard or flip chart * Assessment Forms: discussion and post-assessment forms | | |
| Time | Instructor Activities | Learner Activities | Lesson Resource | |
| 5 minutes | **Welcome & introductions**:  Introduce yourselves (trainers/presenters)  Brief overview of the objectives and agenda of session 1 | |  | |
| 10 minutes | Bridge-In  Think-Pair-Share: Ethical Considerations and Risks in Technology Use  Objective: Assess participants' existing knowledge and understanding of ethical considerations and potential risks associated with using technology in the classroom.  Instructions:  Provide participants with a short questionnaire that assesses their knowledge and understanding of ethical considerations and risks associated with technology use in the classroom. The questionnaire could include questions such as:   * What are some ethical considerations associated with using technology in the classroom? * What are some potential risks associated with using technology in the classroom? * How can you ensure equitable access for all participants when using technology in the classroom? * Have you ever experienced any negative consequences as a result of technology use in the classroom? If so, please describe.   Have participants discuss these questions with a partner for about 5 minutes. Ask for volunteers to share their responses with the whole group. Trainers will take notes of their responses to identify areas where trainees may need additional support or instruction. | | * Slides or handouts with information on ethical considerations and potential risks associated with technology in the classroom. * Examples of scenarios or case studies that illustrate the challenges faced by educators when using technology with students. | |
| 20 minutes | * Provide an overview of ethical considerations and potential risks associated with using technology in the classroom. * Facilitate a brief discussion on the importance of addressing these issues. | * Participate in the discussion by sharing their own experiences or concerns. * Take notes on the key concepts and terms introduced by the instructor. |
| 20 minutes | * Introduce the concept of inclusive practices and explain how they can be used to mitigate the risks associated with technology use. * Provide examples of inclusive practices and how they can promote equal access for all participants. | * Reflect on their own practices and identify areas where they can improve to ensure that all students have equal access to technology. * Brainstorm strategies for implementing inclusive practices in their own classrooms. * Have participants post their answers on Canva Whiteboard. Go over each response to promote community learning. |
| Break for 20 minutes | | | | |
| 20 minutes | * Facilitate a group activity where participants work in pairs to analyze a case study related to technology use in the classroom. * Encourage participants to identify ethical considerations and potential risks associated with technology use, and brainstorm strategies for addressing them. | * Work in pairs to analyze the case study and identify potential risks and ethical considerations. * Brainstorm strategies for addressing those risks and considerations. | * Handouts or worksheets for participants to use during the activity. * Access to the internet or other resources to help participants develop their strategies. | |
| 20 minutes | * Summarize the key concepts and strategies covered in the session. * Invite participants to share their reflections on what they have learned and how they plan to apply this knowledge in their own classrooms. | * Work in small groups to develop a set of strategies for addressing ethical considerations and mitigating potential risks associated with technology use in their classrooms. * Present their strategies to the rest of the group for feedback and suggestions. |
| Post-Assessment Task: Action Plan for Ethical Technology Integration  Description:  Participants will create an action plan for integrating technology ethically and equitably into their classrooms. This action plan will identify potential risks and ethical considerations, propose strategies to mitigate these risks and describe how to ensure equitable access to technology for all students.  Instructions:   1. Reflect on the content discussed during the workshop and consider your own classroom context. 2. Identify three potential risks or ethical considerations associated with using technology in your classroom. 3. For each identified risk or ethical consideration, develop a strategy to mitigate the issue while ensuring equitable access to technology for all students. 4. Create a 1-2 page action plan outlining your identified risks, ethical considerations, and proposed strategies. Explain the rationale behind your strategies and how they promote equitable access to technology for all students.   Trainers may find the rubric chart for this assessment task in the file named Training Materials/Assessment in the training packet. The rubric chart provides a detailed evaluation of the qualitative assessment task, focusing on the identification of risks and ethical considerations, strategies for mitigation and equitable access, action plan structure and coherence, and the rationale and understanding of equitable access. The scores range from Emerging to Exemplary. Participants can use this rubric to guide their case study analysis and reflection, ensuring they meet the desired expectations and requirements. | | | | |

| **Session 2** | | | | |
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| Title: Creating Interactive Multimedia Lessons using Canva | | | | Duration:  2h 10m |
| Description In this session, participants will learn how to use Canva to create interactive multimedia lessons that incorporate various multimedia elements. They will also be provided with examples of effective multimedia design and emphasize the importance of designing multimedia that engages participants and enhances learning outcomes. There will be a 20-minute break halfway through the session. | | | | |
| Learning Objectives   * Create interactive multimedia lessons that engage participants and enhance learning outcomes through the use of multimedia elements. * Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments. | | | | |
| Participatory Learning   * Group Discussions: Encourage participants to share their experiences and ideas with the group during the session. This can help to generate new ideas and perspectives on how to create effective multimedia lessons. * Peer Review: Incorporate a peer review process where participants will have an opportunity to give and receive feedback on their multimedia lesson designs. This will promote collaboration and constructive feedback among the participants. * Hands-On Activities: Incorporate hands-on activities during the session where participants will have an opportunity to work on creating their multimedia lessons. This will promote experiential learning and help participants to gain a deeper understanding of the concepts and skills being taught. * Reflection: Encourage participants to reflect on their learning throughout the session. This can be done through journaling or group discussions. Reflection can help participants to consolidate their learning and make connections between the new knowledge and their prior experiences. | | Materials   * Projection equipment * Computers: Each participant will need access to a computer with internet connectivity * Canva Account * Multimedia Lesson Template * Canva Tutorial * Peer Review Guidelines * Assessment Forms: discussion and post-assessment forms | | |
| Time | Instructor Activities | Learner Activities | Lesson Resource | |
| 20 minutes | **Welcome & introductions**:  Introduce yourselves (trainers/presenters)  Brief overview of the objectives and agenda of session 2  **Bridge-In**  Think-Pair-Share:  Participants will complete a brief discussion to gauge their current knowledge and skills related to creating interactive multimedia lessons and using Canva.   * Are you familiar with the concept of interactive multimedia lessons? If so, can you briefly describe what they are and provide an example? * Have you ever used Canva to design multimedia content before? If not, are you familiar with what Canva is and how it can be used? * When it comes to creating interactive multimedia lessons, what do you think would be your biggest challenge? How do you plan to address this challenge and overcome it?   Have participants discuss these questions with a partner for about 5 minutes. Ask for volunteers to share their responses with the whole group. Trainers will take notes of their responses to identify areas where trainees may need additional support or instruction. | | * PowerPoint presentation, group discussion guidelines. * Canva tutorial, sample multimedia lesson template, handout on Canva keyboard shortcuts. * A computer for each participant with internet access | |
| 10 minutes | * The facilitator will explain the importance of multimedia design in engaging participants and enhancing learning outcomes. | * Participants will share their experiences with multimedia design and discuss the benefits of incorporating multimedia elements in their teaching practices. |
| 20 minutes | * The facilitator will demonstrate the basic features of Canva for creating interactive multimedia lessons. They will provide step-by-step instructions and highlight the various multimedia features available in Canva. | * Participants will follow the facilitator's instructions and learn how to use the basic features of Canva for creating interactive multimedia lessons. |
| * Break for 20 minutes | | | | |
| 20 minutes | * The facilitator will guide participants through advanced features of Canva and provide tips and tricks for creating professional-looking multimedia lessons. | * Participants will apply the advanced features of Canva to their sample multimedia lesson and share their work with the group. | * Canva tutorial on advanced features, sample multimedia lesson template, and peer review guidelines. * Canva tutorial on sharing and publishing, multimedia lesson sharing guidelines, and peer review guidelines. | |
| 20 minutes | * The facilitator will demonstrate how to share and publish multimedia lessons created in Canva. | * Participants will share their multimedia lesson with a partner and provide feedback on how to improve it. |
| Post-Assessment: Design a Multimedia Lesson Using Canva  Description:  Participants will create a multimedia lesson using Canva that demonstrates their understanding of effective multimedia design principles and their ability to incorporate various multimedia elements. The lesson should be designed to engage students and enhance learning outcomes.  Instructions:   1. Choose a topic relevant to your subject area or grade level. 2. Create a multimedia lesson using Canva that incorporates various multimedia elements, such as images, videos, interactive elements, and text. 3. Ensure the design follows effective multimedia design principles and focuses on engaging students and enhancing learning outcomes. 4. Provide a brief written explanation (1-2 paragraphs) of how your multimedia lesson follows effective design principles and enhances learning outcomes.   Trainers may find the rubric chart for this assessment task in the file named Training Materials/Assessment in the training packet. This rubric chart provides a detailed evaluation for the qualitative assessment task, focusing on the use of multimedia elements, effective design principles, engagement and learning outcomes, and the written explanation. The levels are indicated by descriptors (Exemplary, Proficient, Developing, and Emerging). Participants can use this rubric to guide the development of their multimedia lesson, ensuring they meet the desired expectations and requirements. | | | | |

| Session 3 | | | | |
| --- | --- | --- | --- | --- |
| Title: Using Kahoot to Create Effective Assessment | | | | Duration:  2h 10m |
| Description In this session, participants will complete a discussion to gauge their understanding of Kahoot and technology-based assessments. They will then learn how to use Kahoot to create engaging quizzes and assessments that effectively measure learning and engagement. Participants will also learn how to analyze the results and make data-driven decisions to improve student learning outcomes. There will be a 5-minute bridge-in at the beginning of the session, a 20-minute break halfway through the session, and a 5-minute post-assessment at the end of the session to measure learning outcomes. | | | | |
| Learning Objectives   * Use technology-based assessments to measure learning and engagement and analyze the results to improve student learning outcomes. * Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments. | | | | |
| Participatory Learning   * Group discussions and peer-to-peer feedback on Kahoot assessments created by participants. * Collaborative work on creating Kahoot assessments. * Small group presentations on data analysis and decision-making based on Kahoot assessments. | | Materials   * Computers or laptops for each participant with access to Kahoot. * Internet connection. * Projector or large screen for the instructor's presentation. * Handouts or online resources on Kahoot and data analysis. * Whiteboard and markers for group discussions and collaborative work. | | |
| Time | Instructor Activities | Learner Activities | Lesson Resource | |
| 5 minutes | **Welcome & introductions**:  Introduce yourselves (trainers/presenters)  Brief overview of the objectives and agenda of session 3 | | * Handouts with instructions on how to create a Kahoot quiz * Worksheets for participants to use during the learner activity | |
| 5 minutes | **Bridge in**  Think-Pair-Share:   * Have you used Kahoot before? If so, how have you used it to assess student learning? * What other technology-based assessment tools have you used in the classroom? * How do you analyze assessment results to make data-driven decisions to improve student learning outcomes? * What do you hope to learn from this session about using Kahoot to assess student learning more effectively? | |
| 20 minutes | * Demonstrate how to create a Kahoot quiz and assessment that aligns with the learning objectives * Share best practices for creating engaging and effective Kahoot quizzes and assessments * Answer any questions participants may have | * Participants follow the Kahoot demonstration and practice creating a quiz on Kahoot. * Ask questions to clarify any confusion about Kahoot or the demonstration * Brainstorm ideas for their own Kahoot quiz and assessment to be created in the next period |
| 20 minutes | * Review the Kahoot quizzes and assessments created by the participants * Provide feedback on the effectiveness and engagement level of each quiz and assessment * Answer any questions participants may have | * Participants will work in pairs or small groups to create their own Kahoot quiz for the school subject that they are currently teaching and post the link to the Kahoot quiz on Canva whiteboard to share it with the other participants. The participants will take the Kahoot quizzes created by their peers. * Encourage participants to use the best practices shared in the previous period to create engaging and effective Kahoot quizzes and assessments * Answer any questions participants may have |
| Break for 20 minutes | | | | |
| 20 minutes | * Demonstrate how to analyze Kahoot results and make data-driven decisions to improve student learning outcomes * Share examples of how Kahoot results can be used to improve student learning outcomes * Answer any questions participants may have | * Take notes on the Kahoot demonstration * Ask questions to clarify any confusion about analyzing Kahoot results * Brainstorm ways they could use Kahoot results to improve student learning outcomes in their own classroom |  | |
| 20 minutes | * Have participants review the data-driven decisions made by each group and provide feedback on the effectiveness of each decision. * Answer any questions participants may have. | * Participants will work in the same pairs or small groups to analyze the Kahoot results from their own quiz created before the break. * Using the results, they will make data-driven plans to improve student learning outcomes. Then they will post their plans on the Canva whiteboard for feedback from peers. * Encourage participants to be creative and think outside the box when analyzing the results. |
| Post-Assessment Activity: Design a Kahoot Quiz for Peer Assessment  Description:  Participants will create a Kahoot quiz designed to assess their peers' understanding of the workshop content. The quiz should cover the key concepts and skills taught during the workshop, focusing on using Kahoot and technology-based assessments to improve student learning outcomes.  Instructions:   1. Review the workshop content and identify key concepts and skills related to Kahoot and technology-based assessments. 2. Create a Kahoot quiz with at least 10 questions designed to assess your peers' understanding of the workshop content. 3. Ensure the quiz is engaging, accessible, and effectively measures the key concepts and skills from the workshop. 4. Write a brief reflection (1-2 paragraphs) discussing how the quiz engages participants, measures their understanding of the workshop content, and how this type of assessment can be used in a classroom setting.   Trainers may find the rubric chart for this assessment task in the file named Training Materials/Assessment in the training packet. This rubric chart provides a detailed evaluation for the qualitative assessment task, focusing on the Kahoot quiz design, reflection on quiz engagement and assessment, and the application of workshop concepts. The levels are indicated by descriptors (Exemplary, Proficient, Developing, and Emerging). Participants can use this rubric to guide the development of their Kahoot quiz for peer assessment, ensuring they meet the desired expectations and requirements. | | | | |

| Session 4 | | | | |
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| Title: Incorporating Gamification into Teaching | | | | Duration:  2h 10m |
| Description:  In this session, participants will learn how to incorporate gamification into their teaching strategies to increase motivation and engagement among students. They will also learn how to assess the effectiveness of gamification strategies using formative assessments. There will be a 30-minute break halfway through the session. | | | | |
| Learning Objectives   * Design gamification strategies to increase motivation and engagement among students and assess their effectiveness using formative assessments. * Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments. | | | | |
| Participatory Learning   * Brainstorming sessions: Participants can work in small groups to brainstorm different gamification strategies and technology tools that can enhance student learning outcomes. * Peer feedback: Participants can work in pairs or small groups to provide feedback on each other's gamification strategies and formative assessments. * Case studies: The facilitator can present case studies of successful gamification strategies and technology tools that have been used to enhance student engagement and learning outcomes. Participants can then discuss these case studies and reflect on how they can apply similar strategies in their own teaching. * Role-playing activities: Participants can engage in role-playing activities to simulate different scenarios in which gamification strategies and technology tools can be used to enhance student learning outcomes. * Collaborative projects: Participants can work in groups to create a gamification strategy and formative assessment that can be used in their own teaching context. They can then share their projects with the rest of the group and receive feedback. | | Materials   * Projection equipment * Whiteboard and markers * Laptops with internet access * Presentation on gamification strategies and technology tools * Formative assessment templates * Case studies of successful gamification strategies and their impact on student engagement and learning outcomes. | | |
| Time | Instructor Activities | Learner Activities | Lesson Resource | |
| 10 minutes | **Introduction:**  The facilitator will introduce the topic of gamification and provide an overview of the session.  **Bridge-in**:  Start a discussion by asking   1. Have you ever experienced gamification in education before? If so, can you describe the experience? 2. In your opinion, what are some potential benefits of using gamification in education? 3. How can gamification be used to enhance the learning experience for students? 4. Are there any specific subject areas or topics that would be particularly well-suited for gamification? Why or why not? | | * [Presentation on gamification strategies](https://www.canva.com/design/DAFe-qyR3TM/8c3HTmbQRzb6xKnuYDVNyw/view?utm_content=DAFe-qyR3TM&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton) | |
| 15 minutes | * The facilitator will explain the concept of gamification and its importance in teaching. They will also discuss different gamification strategies and their benefits. | * Participants will brainstorm different gamification strategies and share their ideas with the group. |
| 15 minutes | * The facilitator will introduce formative assessments and their role in evaluating the effectiveness of gamification strategies. | * Taking notes and asking questions if needed |
| * Break for 20 minutes | | | | |
| 15 minutes | * The facilitator will introduce technology tools to enhance student learning outcomes and engagement throughout gamification. | * Participants will work in groups to explore different technology tools and discuss how they can be used to enhance their gamification strategies. |  | |
| 15 minutes | * The facilitator will discuss the importance of evaluating the impact of gamification tools on student engagement and learning outcomes. | * Participants will create a formative assessment to evaluate the impact of technology tools on their gamification strategies. |
| Gamification Design Challenge:  Divide the participants into groups of 4-5 and give each group a scenario where they must design a gamification strategy to enhance student motivation and engagement. The procedure can be based on a subject area or grade level relevant to the participants' teaching context.  For example: "Design a gamification strategy to enhance student motivation and engagement in a 7th-grade math class."  The groups will have 20 minutes to design a gamification strategy that includes:   1. A clear goal or objective 2. A description of the game mechanics 3. A list of rewards and incentives 4. A plan for formative assessments to evaluate the effectiveness of the gamification strategy   After twenty minutes, each group will present their gamification strategy to the rest of the participants. During the presentation, they should explain how their gamification strategy will enhance student motivation and engagement and how they plan to evaluate its effectiveness using formative assessments.  The rest of the participants will provide feedback and ask questions to assess the effectiveness of each group's gamification strategy. The facilitator can also provide feedback and guidance on improving the gamification strategies.  This activity will assess the participants' understanding of gamification strategies, formative assessments, and their ability to apply these concepts to their own teaching context. It also promotes collaboration and active learning among the participants. | | | | |

| Session 5 | | | | |
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| Title: Using ChatGPT for Personalized Feedback | | | | Duration:  2h 10m |
| Description Participants will learn how to use ChatGPT to assist with student learning and provide personalized feedback on student writing. They will also learn how to assess the impact of technology on student learning outcomes. There will be a 30-minute break halfway through the session. | | | | |
| Learning Objectives   * Utilize AI language models to provide personalized feedback on student writing and assess their impact on student learning outcomes. * Demonstrate proficiency in using technology tools to enhance student learning outcomes and evaluate their impact on student engagement and learning outcomes using formative assessments. | | | | |
| Participatory Learning   * Pair or small group discussions: Participants could be paired or grouped and asked to discuss specific questions or prompts related to the session topic. For example, they could discuss using ChatGPT to provide personalized feedback on student writing in their classrooms. * Case studies: Instructors could provide case studies or scenarios related to the session topic, such as student writing examples requiring personalized feedback. Participants could then work in groups to develop solutions or strategies using ChatGPT to provide feedback. * Interactive demonstrations: The instructor could provide interactive demonstrations of using ChatGPT to provide personalized feedback on student writing. Participants could then try out the tool themselves and provide feedback on its effectiveness. | | Materials   * Projection equipment * A computer or tablet with internet access and a projector for displaying materials and demonstrations. * Sample student writing for participants to practice providing feedback. * [A step-by-step guide for using ChatGPT to provide feedback.](https://docs.google.com/document/d/1gSCnUyXAi5lAdLIvMJGT08gxo2zh7IdX/edit?usp=sharing&ouid=113553891595877715420&rtpof=true&sd=true) * Post-assessment activity materials * [A summary of key takeaways from the session to distribute to participants.](https://drive.google.com/drive/folders/1GX0xqCSiT5KSFs5LBYSOqrl27-jScjfD?usp=share_link) | | |
| Time | Instructor Activities | Learner Activities | Lesson Resource | |
| 5 minutes | **Bridge-In**   * Introduce the session agenda and objectives. * Give participants a sample of student writing for further discussions | | * [Slides or visual aids outlining the basics of AI language models.](https://www.canva.com/design/DAFe_L_Rxco/cpJw55Y4DKf7KDtfWygNtQ/edit?utm_content=DAFe_L_Rxco&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton) * Relevant articles or research studies on the use of AI language models in education. * Access to [ChatGPT](https://openai.com/blog/chatgpt) or a similar AI language model. * [Sample student writing prompts or assignments for participants to practice on.](https://docs.google.com/document/d/1gSCnUyXAi5lAdLIvMJGT08gxo2zh7IdX/edit?usp=sharing&ouid=113553891595877715420&rtpof=true&sd=true) | |
| 10 minutes | * Provide an overview of AI language models and their potential applications in education. * Share examples of how AI language models can be used to provide personalized feedback on student writing. | * In small groups, participants could discuss their previous experiences by providing feedback on student writing and sharing their thoughts on the potential benefits of using ChatGPT. * Reflect on how AI language models could be used in their own teaching practice. |
| 20 minutes | * Provide a tutorial on how to use ChatGPT to provide personalized feedback on student writing. * Model the process of using ChatGPT to provide feedback on a sample piece of student writing. | * Practice using ChatGPT to provide feedback on a sample piece of student writing. * Discuss their experiences and any challenges they encountered. |
| Break for 20 minutes | | | | |
| 20 minutes | * Discuss the importance of evaluating the impact of AI on student engagement and learning outcomes. | * Brainstorm ways they could evaluate the impact of technology on their own students' learning outcomes. * Participants could work in groups to develop an assessment plan for evaluating the impact of ChatGPT on student learning outcomes. | * [Template or guide for designing personalized feedback projects using ChatGPT.](https://docs.google.com/document/d/1gSCnUyXAi5lAdLIvMJGT08gxo2zh7IdX/edit?usp=sharing&ouid=113553891595877715420&rtpof=true&sd=true) | |
| 10 minutes | * Divide Learners into groups for an activity * Provide feedback and support as needed. | * Work in small groups to design personalized feedback projects using ChatGPT. * Participants could reflect on their learning during the session and share their thoughts on how they plan to apply what they learned in their classrooms. |
| Post-Assessment Activity: ChatGPT Implementation Plan  Instructions:   1. Provide participants with a scenario where they must provide personalized feedback on student writing using ChatGPT. 2. Ask participants to create an implementation plan outlining the steps to use ChatGPT effectively to provide personalized feedback. 3. The implementation plan should include specific examples of how ChatGPT could enhance student learning outcomes. 4. After 10 minutes, ask participants to share their implementation plans with the group. 5. Facilitate a group discussion where participants can share their thoughts and ideas about how ChatGPT could be used effectively to provide personalized feedback and enhance student learning outcomes.   This post-assessment activity aims to evaluate participants' ability to apply the knowledge and skills they gained during the session to real-world scenarios. This activity will allow participants to demonstrate their understanding of how ChatGPT can be used effectively to provide personalized feedback and enhance student learning outcomes. | | | | |

\*\* Please find grading rubrics and assessment measuring plans in the “Training Materials/Assessment” file in the same folder.

**Strategies to promote digital citizenship**

The importance of Professional Development programs in education cannot be overstated, as they allow teachers to continuously improve their teaching skills and stay abreast of the latest educational trends. Technology integration in the classroom is one of the areas of focus for professional development programs. However, it is essential to ensure that teachers are also equipped with the necessary skills to promote responsible and ethical use of technology among their students. Implementing strategies to promote digital citizenship is particularly important in this context to ensure that technology is used effectively in the classroom for the benefit of all students. Our professional development program focuses on strategies for promoting digital citizenship with participants of the PD program. Learning outcomes include technology integration, assessment, gamification, data analytics, AI language models, and ethical considerations.  
  
The following strategies can be used in a professional development program to promote digital citizenship:

1. Teach digital citizenship: Begin the professional development program with a session on digital citizenship. Teach participants the importance of being responsible and ethical online and how to model those behaviours for their students.
2. Emphasize online safety and privacy: Discuss best practices for keeping personal information safe online, avoiding scams and phishing attempts, and protecting passwords and sensitive data.
3. Promote critical thinking: Encourage participants to promote critical thinking in their students by teaching them how to evaluate online sources and recognize bias.
4. Teach copyright and fair use: Educate participants on copyright law and how to use and cite online resources while respecting intellectual property rights.
5. Model positive online behaviour: Model positive online behaviour and encourage participants to do the same by promoting respectful communication, constructive feedback, and appropriate classroom technology use.
6. Discuss cyberbullying prevention: Discuss strategies for preventing and responding to cyberbullying and how to support students who may be victims of online harassment.
7. Promote digital literacy: Encourage participants to stay updated with the latest technology tools and trends and how to integrate them effectively into their teaching practice.
8. Foster inclusive classrooms: Discuss strategies for promoting equity and inclusion in the use of technology, such as ensuring access to technology for all students and addressing the digital divide.
9. Encourage ongoing professional development: Encourage participants to continue to learn and develop their digital citizenship skills and to share their knowledge with colleagues and students.

**References**

\*\* All the references related to this agenda and the professional development session are listed under the “Training Resources” file in the same directory.