GAMIFYING EVIDENCE-BASED PRACTICE: A FUN AND COLLABORATIVE EXERCISE FOR TEACHING THE 5 A'S

Vanessa Morales, DC, MS

PYSCHOLOGICAL SAFETY

1. Mistakes could be made without fear of negative consequences.
2. Positive learning experience fostered through honesty, curiosity, flexibility, transparency, respect, approachability, professional integrity modeled by instructor
3. Established foundational activities to enhance application of theory to realistic scenarios.

PMID: 35403551

PYSCHOLOGICAL SAFETY

Games give learners a safe space to fail, while subtly encouraging them to actively consider and retain information in a way that doesn't seem dry or daunting.

Matthew Glotzbach,
Quizlet CEO

GAMIFICATION

Gamification refers to using game attributes in a non-gaming context.

Various studies suggest that gamification may lead to improved learning outcomes in health professions education (1), and positively impacts health science student satisfaction and motivation (2).

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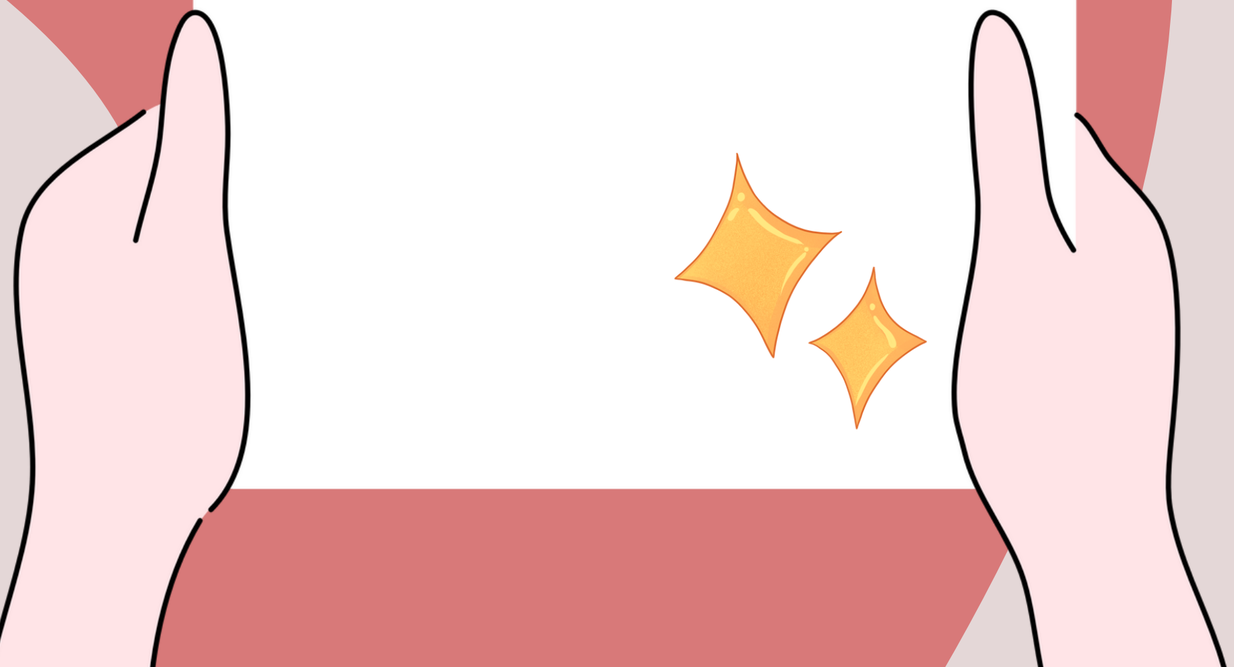
2. 33153931

GAMIFICATION STRATEGIES

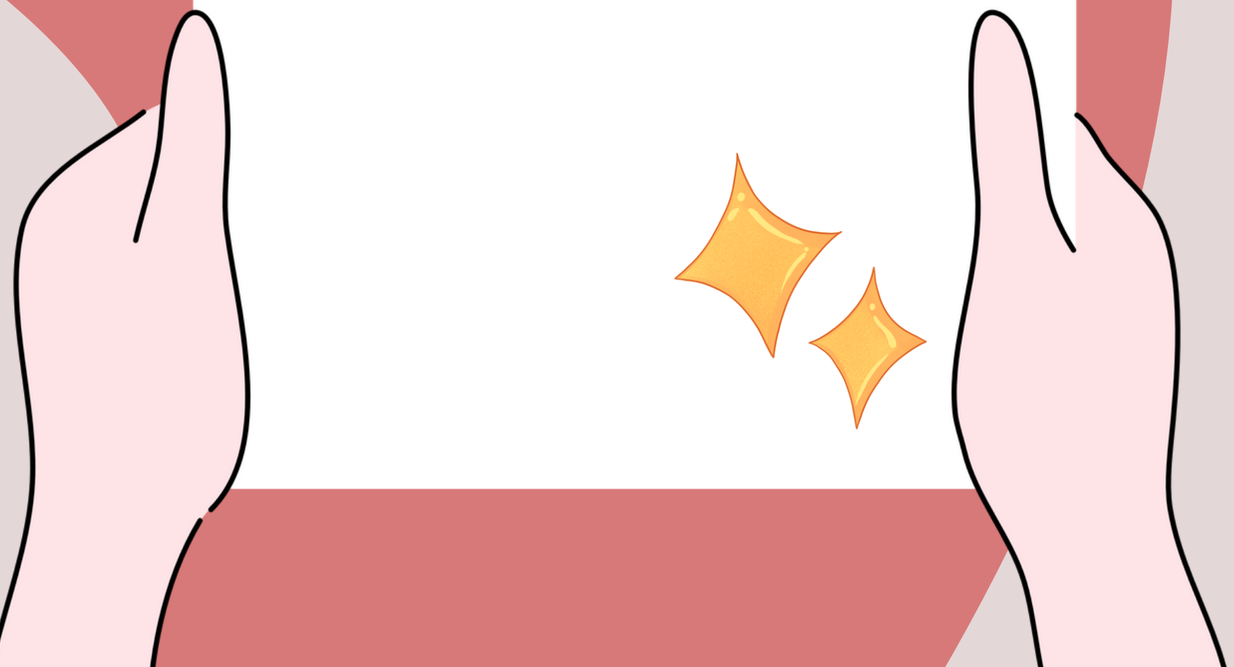


1. Point Systems: learners earn points for completing health-related tasks, quizzes, or challenges. Points can be used to unlock rewards or progress to higher levels.

2. Badges and Achievements: Award badges or achievements to learners for reaching specific milestones or demonstrating mastery in health topics. This provides a sense of accomplishment and recognition.

3. Quests and Missions: Structure the learning experience as a series of quests or missions, where learners need to complete health-related tasks or challenges. Each successful completion leads to the next stage, creating a sense of progression and adventure.

GAMIFICATION STRATEGIES

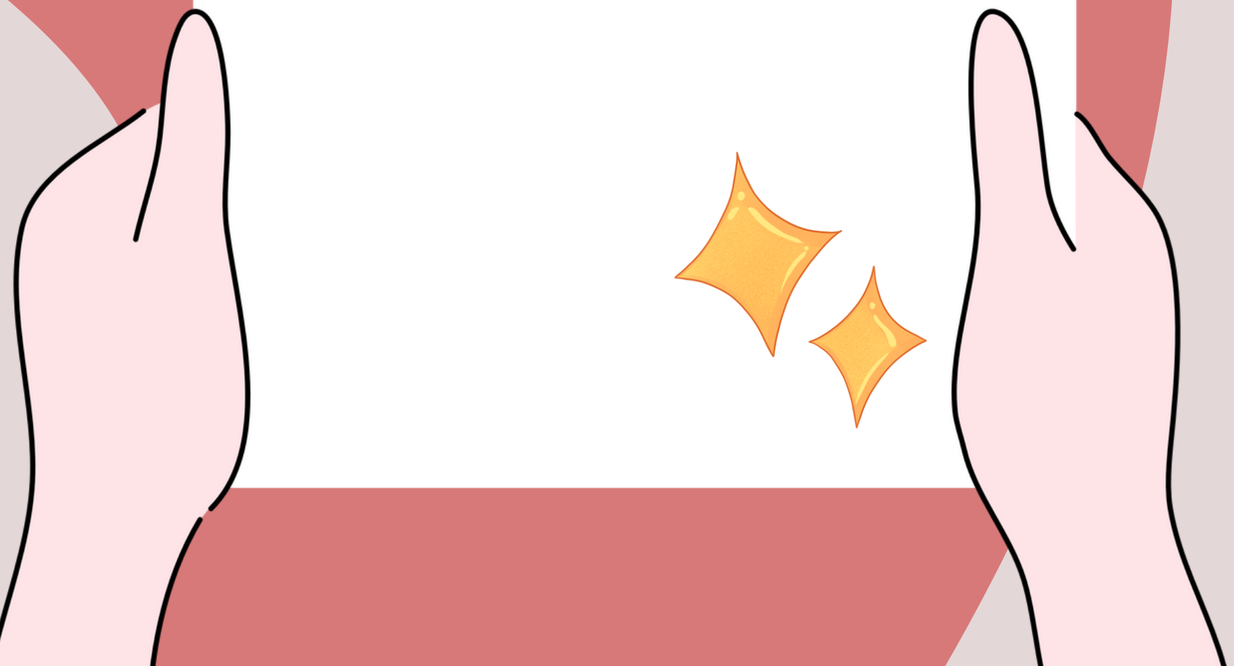


4. Storytelling and Narrative: Incorporate storytelling elements to present health information in a compelling and interactive way. Engage learners in a narrative where they make choices and face consequences based on their health-related decisions.

5. Virtual Rewards and Incentives: Provide virtual rewards such as virtual currency, items, or customization options that learners can earn and use within the gamified health education environment.

6. Time Constraints and Countdowns: Introduce time-based challenges or countdowns to add excitement and urgency to course-related activities. Learners can earn rewards or achieve higher scores by completing tasks within a given time limit.

GAMIFICATION STRATEGIES



7. Social Collaboration: Encourage social interaction and collaboration among learners by incorporating features such as team challenges, group discussions, or peer feedback. This fosters a sense of community and shared learning.

8. Progress Tracking and Feedback: Implement progress tracking mechanisms that allow learners to see their improvement over time. Provide feedback on their performance and offer suggestions for improvement to enhance their learning experience.

9. Real-World Applications: Connect the gamified health education experience to real-world applications and encourage learners to apply their knowledge in practical settings. This can be through interactive simulations, case studies, or role-playing scenarios.

GAMIFICATION STRATEGIES

ERRORS

1. Time Trial Challenge: Set a time limit for each group to find as many errors as possible. The group that identifies the most errors within the given time wins.

2. Error Hunter Points: Assign different point values to errors based on their difficulty. Groups earn points for each correctly identified error, and the group with the highest score wins.

3 Error Bingo: Create bingo cards with different types of errors instead of numbers. As groups find errors, they mark them on thei rbingo cards. The first group to complete a row or column wins.

GAMIFICATION STRATEGIES

ERRORS

4. Error Relay Race: Divide the document into sections. Each group works on a different section. Once they find an error, they pass the document to the next group, who continues the search. The first group to finish and identify all errors wins.

5. Error auction: Assign a budget to each group. Errors have price tags based on their difficulty. Groups bid on errors they believe they can find. The group with the most accurate bids and highest remaining budget wins.

6. Error Olympics: Design different error-finding challenges, such as inaccurate clinical implications, limitations, biases, etc. Each challenge awards points, and the group with the highest overall score wins.

GAMIFICATION STRATEGIES

ERRORS

7. Error Debate: After finding errors, groups have to defend their corrections. Engage in a debate where groups explain why their changes are the most accurate. The group with the most persuasive argument wins.

8. Error Storytelling: Transform the error-finding into a collaborative storytelling game. Each group finds an error and creates a story around it. The group with the most creative and engaging story wins.

EASY GAMIFICATION SERVICES

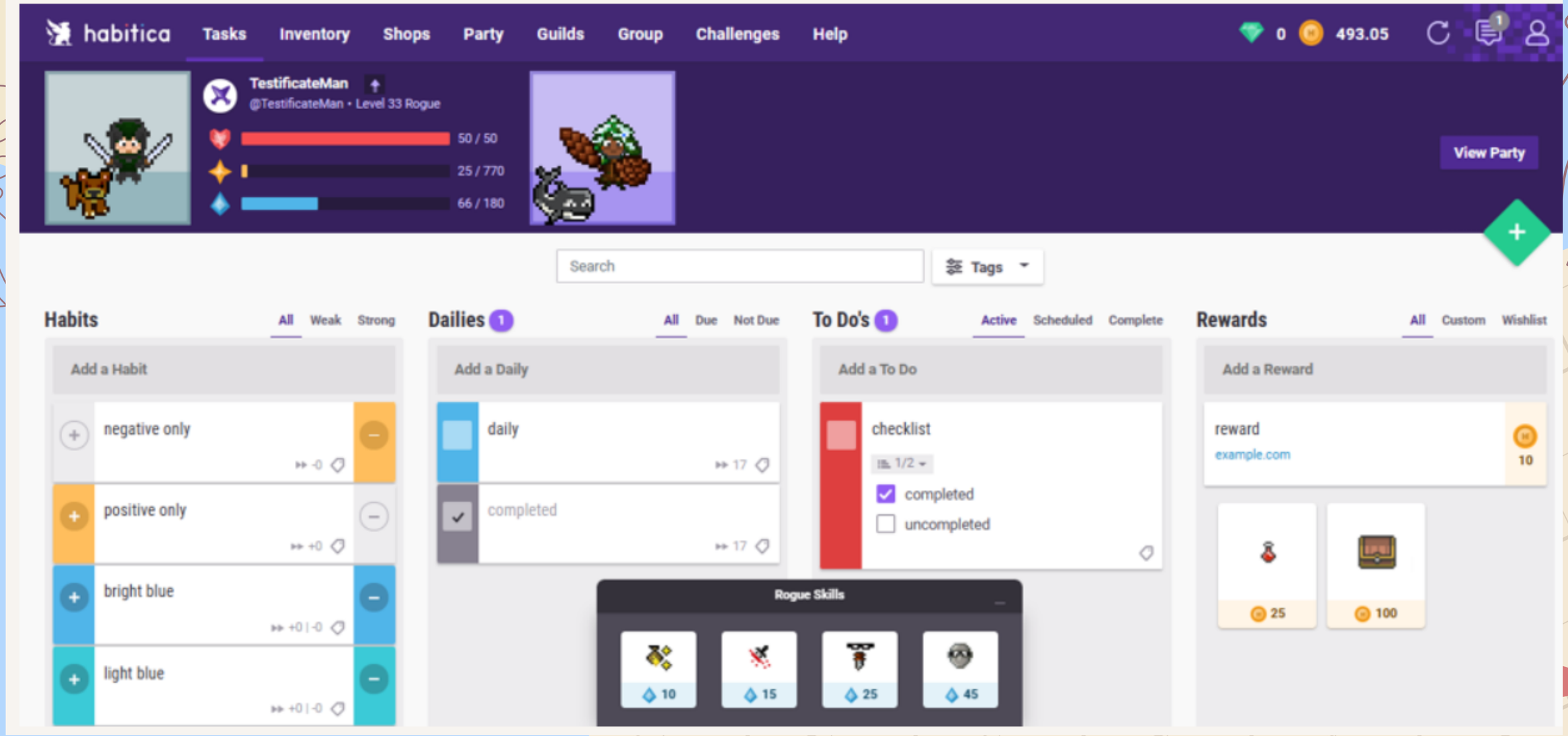
HABITICA

Gamified Goal Tracking Habitica is a productivity app that gamifies the assessment of personal goals and habits.

Users create avatars and earn experience points and virtual rewards by completing real-life tasks and maintaining positive habits.

The app provides a visual representation of progress, encourages users to set goals, and incorporates social features such as team challenges and guilds for added motivation and accountability.

HABITICA


habitica
Tasks
Inventory
Shops
Party
Guilds
Group
Challenges
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50 / 50
25 / 770
66 / 180
View Party
Search
Tags
Habits
All
Weak
Strong
Add a Habit
negative only
positive only
bright blue
light blue
Dailies 1
All
Due
Not Due
Add a Daily
daily
completed
To Do's 1
Active
Scheduled
Complete
Add a To Do
checklist
1/2
completed
uncompleted
Rewards
All
Custom
Wishlist
Add a Reward
reward
example.com
10
25
100
Rogue Skills
10
15
25
45

QUIZLET

Gamified Flashcards Quizlet, an online learning platform, offers a gamified approach to assessment through its flashcard system.

Users can create and study flashcards on various topics, and Quizlet incorporates game-like features such as timed quizzes, leaderboards, and competitive modes.

This gamification encourages learners to assess their knowledge, track progress, and engage in friendly competition with peers.

QUIZLET

LEARN

2/7

ROUND

66%

PROGRESS

Mastered	22/45
Familiar	14/45
Seen	0/45
New	9/45

Correct! Nicely done

DEFINITION

5th PRESIDENT: 1817 to 1825 (Democrat-Republican)

This president was the last of the founding fathers to serve as President.

GOES WITH

JAMES MONROE

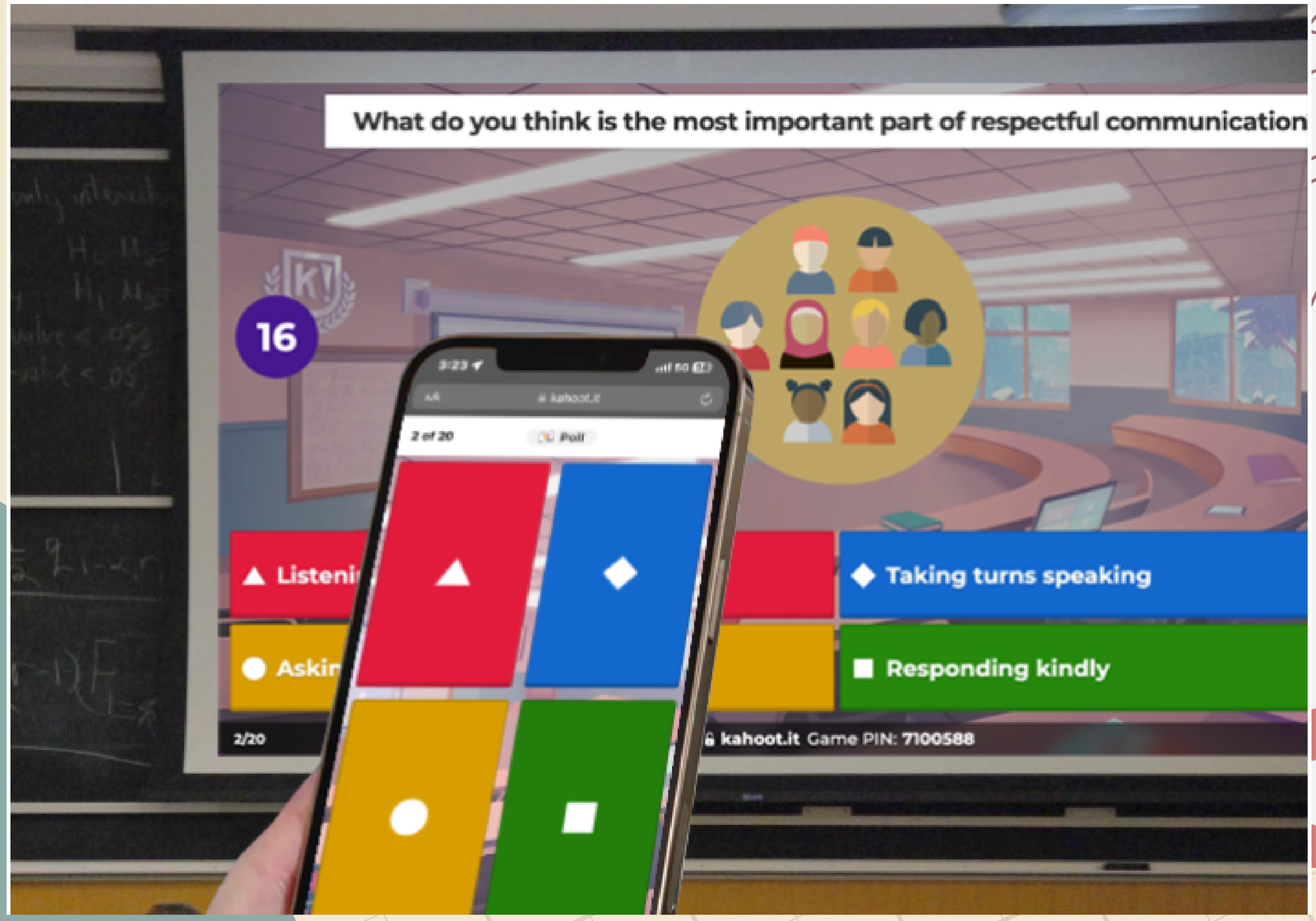
KAHOOT!

Interactive Quiz Games Kahoot! is a popular platform that gamifies the assessment process through interactive quiz games.

Educators can create quizzes on any subject, and students participate using their devices.

Kahoot! incorporates time limits, points, and a leaderboard to make the quiz experience more engaging and competitive. It promotes active learning and enables educators to assess student understanding in a fun and interactive way.

KAHOOT!


What do you think is the most important part of respectful communication
16
2 of 20
Poll
Taking turns speaking
Responding kindly
2/20
kahoot.it Game PIN: 7100588

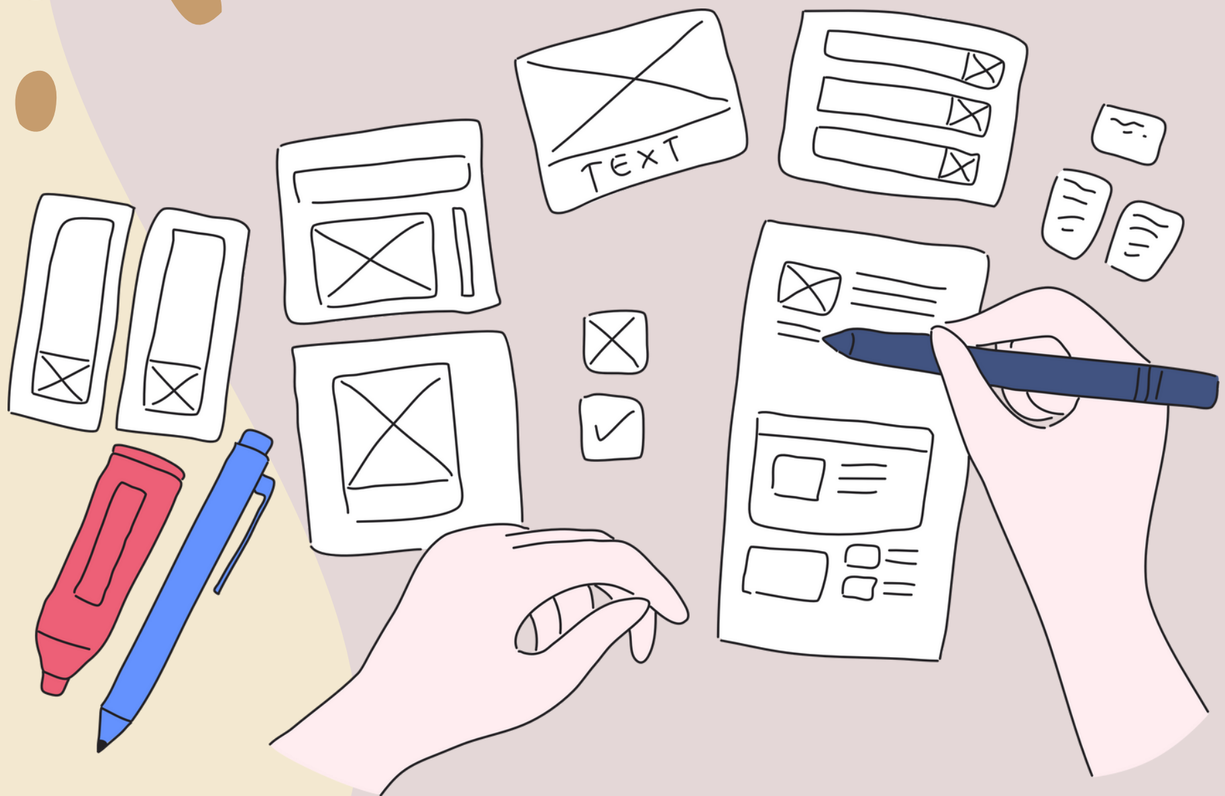
Activity Type Web 2.0 Tools - Mind Map

Créée par Toy Waterman. Créez vos propres cartes mentales sur www.mindomo.com

mindomo

WHAT ARE SOME EXAMPLE PLANS?

INTERACTIVE GAME-BASED APPROACH:

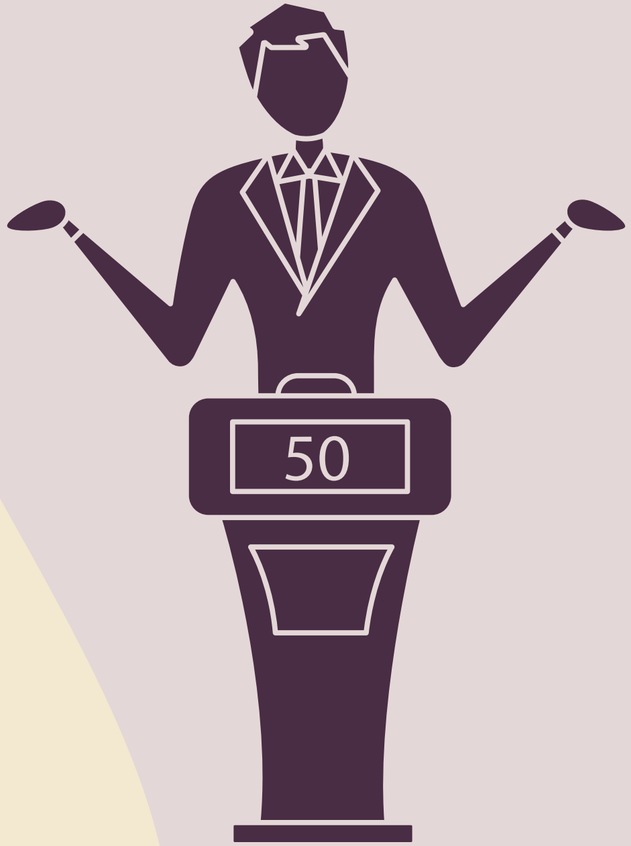


- Divide the session into five segments, each focusing on one of the 5 A's.
- For each A, design a short interactive game or activity that demonstrates its importance.
- For example, for "Assess," you could create a quiz-style game where participants answer questions related to assessment aspects of an article, earning points or rewards for correct answers.
- Encourage active participation and engagement throughout the session by allowing participants to compete or collaborate in the games.
- Conclude the session with a summary of the key takeaways and tips.

GAMIFIED HEALTH ASSESSMENT JOURNEY

- Start the session by introducing the 5 A's and their importance in health education.
- Divide the session into five segments, each focusing on one of the A's.
- For the "Assess" stage, create a gamified health assessment journey. Design a virtual map with different checkpoints, each representing an assessment task or quiz related to case(s) or article(s).
- Participants progress through the map by successfully completing each assessment task and earning points or virtual rewards.
- Incorporate time-based challenges and leaderboards to foster a sense of competition and motivation among participants.
- After completing the assessment journey, engage participants in discussions and reflections on the importance of self-assessment in maintaining health and well-being.

INTERACTIVE HEALTH Q&A GAME



- Create an interactive health Q&A game using a gamification platform or a presentation tool with interactive features.
- Divide participants into teams or individuals, depending on the group size.
- Ask health-related questions related to each of the 5 A's, and participants must answer within a given time limit.
- Assign points for correct answers and bonus points for quick responses.
- Include visual elements, such as progress bars or leveling up, to visualize participants' progress and create a sense of achievement.
- Facilitate discussions after each round to explore the reasoning behind the answers and reinforce the importance of the 5 A's in promoting health.

CASE STUDIES WITH DECISION POINTS

- Provide participants with a series of case studies that present real-life scenarios.
- Within each case study, identify decision points where participants must choose an appropriate action or approach based on the 5 A's.
- Use a gamified platform or voting system to collect participants' responses and tally their scores.
- Award points based on the accuracy and reasoning behind the selected actions.
- Foster discussions and peer learning by asking participants to explain their decision-making process and share their perspectives.
- Provide feedback and insights on each decision point, highlighting the importance of each A and its implications in real-life situations.

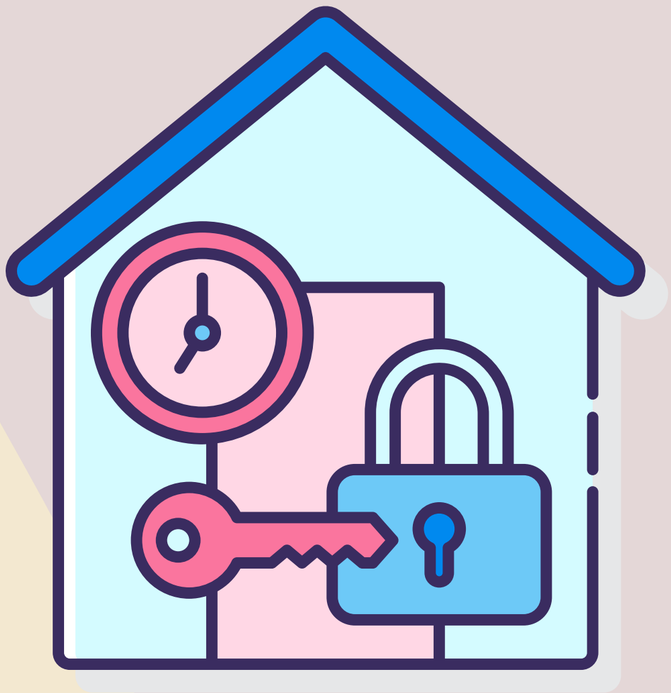
HEALTH QUEST BOARD GAME

- Design a game board with different spaces representing the stages of the 5 A's.
- Participants roll dice or use a virtual spinner to move their game pieces across the board.
- Each space represents a specific activity or question related to the corresponding A.
- Participants must complete the activity or answer the question to progress further.
- Incorporate game cards with challenges or scenarios that require participants to apply the knowledge gained through the 5 A's.
- Provide rewards, such as points or virtual items, for successful completion of tasks.
- Engage participants in discussions and reflections on how the 5 A's can be applied in real-life health situations based on their gameplay experiences.

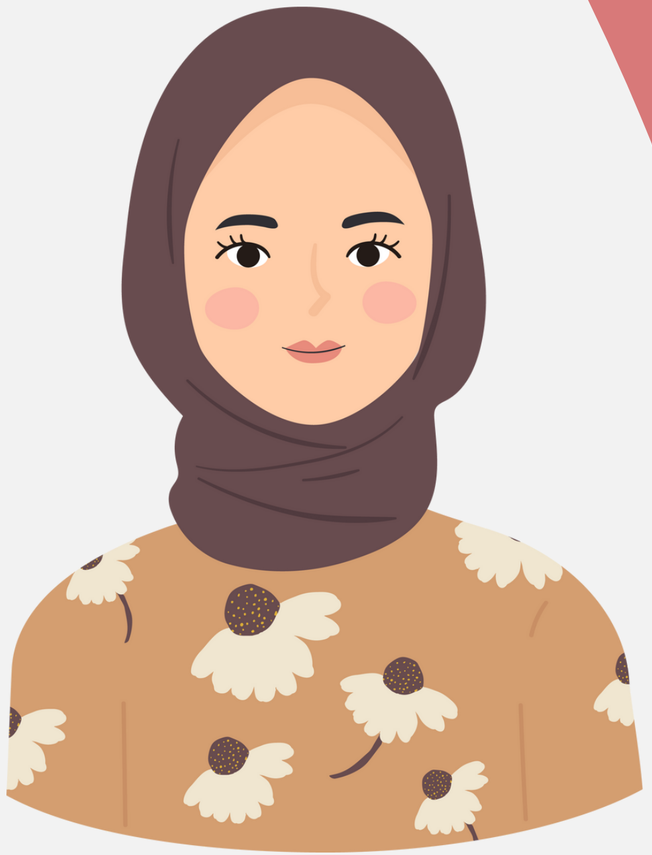
HEALTH APP DEVELOPMENT CHALLENGE

- Challenge the groups to create a gamified health app that incorporates elements of the 5 A's.
- Participants must brainstorm and design features that assess, ask, acquire, appraise, and apply health knowledge in an engaging way.
- Allocate a set time for the groups to create their app concept, outline its functionalities, and design mock-up screens.
- Each group presents their app concept, highlighting how they incorporated the 5 A's and gamification elements.
- Encourage feedback and peer evaluation to promote collaborative learning and exchange of ideas.

ESCAPE ROOM CHALLENGE



- Divide participants into small teams and assign each team a specific health-themed scenario or puzzle.
- Each scenario or puzzle represents one of the 5 A's.
- Participants must work together to solve the puzzles, find clues, and progress through the escape room challenge.
- Each successful solution or progression rewards the team with points or unlocks the next stage of the challenge.
- Include time-based challenges and encourage teams to complete the escape room within the given time limit.
- Facilitate debriefing and reflection after the escape room challenge to discuss how the 5 A's were applied to overcome the health-related obstacles.



WHAT COULD THIS ACTUALLY LOOK LIKE?

Let's dive in!

ESCAPE ROOM CHALLENGE

Stage 1: Ask (10 minutes):

Participants proceed to the Ask stage, representing a consultation or discussion area.

- Present a scenario or case study that requires participants to ask relevant questions to gather information.
- They must identify the key questions and find the answers within the provided materials or clues.
- The answers lead them to another clue or combination for the next lock.

Stage 2: Acquire (10 minutes):

Participants move to the Acquire stage, which represents a knowledge acquisition station.

- Provide participants with a set of health-related puzzles, riddles, or challenges that require them to acquire new information or skills.
- They must successfully solve the challenges to acquire pieces of information or codes needed to unlock the next stage.

Stage 3: Appraise (10 minutes):

Participants progress to the Appraise stage, symbolizing a critical evaluation area.

- Present a health-related problem or scenario that requires participants to analyze and appraise the given information.
- They must use their critical thinking skills to appraise the information and determine the most appropriate course of action.
- The correct solution or decision leads them to another clue or combination for the final lock.

ESCAPE ROOM CHALLENGE

Stage 4: Apply (10 minutes):
Participants reach the Apply stage, representing a practical application or action area.

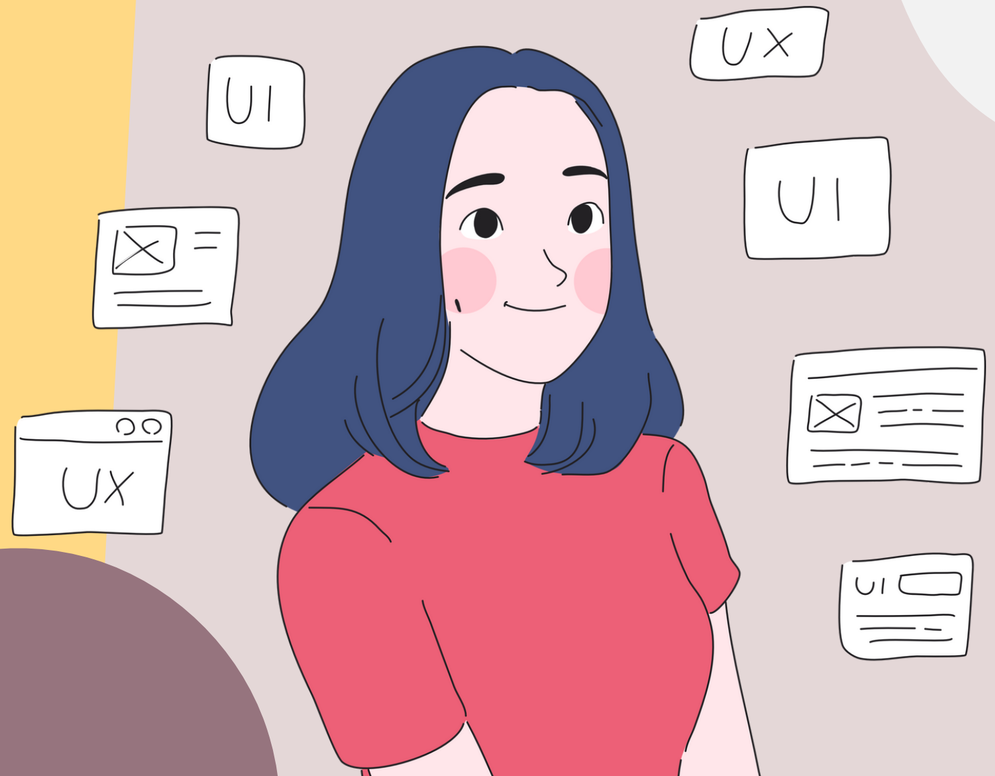
- Present a health-related challenge that requires participants to apply the knowledge and skills gained from the previous stages.
- The correct solution or decision leads them to another clue or combination for the final lock.

Stage 5: Assess (10 minutes):

- Participants enter the Assess stage, which represents a health assessment room.
- Provide participants with a health-related puzzle or challenge that requires them to assess a given situation or condition.
- They must solve the challenge to obtain the key or final code that will unlock the exit and complete the Escape Room Challenge.

CONCLUSION AND DEBRIEFING

- Once a team successfully completes the challenge or the time runs out, gather participants together for a debriefing.
- Facilitate a discussion on the importance of each of the 5 A's and how they were applied throughout the Escape Room Health Challenge.
- Allow participants to share their experiences, challenges faced, and lessons learned during the activity.
- Recognize and celebrate the accomplishments of the participants.



LET'S TAKE
IT VIRTUAL

VIRTUAL ESCAPE ROOM CHALLENGE

Stage 1: Ask (10 minutes):

- Create breakout rooms within the video conferencing platform, assigning each group to a separate room for discussions.
- Provide participants with a health-related scenario or case study, and instruct them to use the chat or video conferencing features to ask relevant questions and gather information.
- Monitor the breakout rooms and join each room to facilitate discussions and provide guidance if needed.
- After the discussion, share the clue or combination for the next stage with each group.

Stage 2: Acquire (10 minutes):

- Instruct participants to use online databases, search engines, or provided links to find relevant articles or resources.
- Participants should critically evaluate the information they acquire and identify key findings or evidence to support their understanding of the scenario.
- Monitor the breakout rooms and join each room to facilitate discussions and provide guidance if needed.
- Encourage participants to cite their sources and share their findings with the group.
- After the discussion, share the clue or combination for the next stage with each group.

VIRTUAL ESCAPE ROOM CHALLENGE

Stage 3: Appraise (10 minutes):

- Share a health-related problem or scenario with participants through a shared document or presentation.
- Instruct participants to analyze and evaluate the given information individually or in breakout rooms.
- Utilize polling features or collaborative document tools to gather their responses or solutions.
- Discuss the correct solution or decision, and provide the clue or combination for the next stage.

Stage 4: Apply (10 minutes):

- Utilize an online platform that supports virtual puzzles or quizzes. Provide participants with a health-related assessment case scenario to solve using information from previous stages.
- Use a shared document or a digital whiteboard where participants can collaborate and discuss their answers.
- Once participants solve the puzzle or complete the quiz, share the clue or combination for the next stage via a private message or screen sharing.

VIRTUAL ESCAPE ROOM CHALLENGE

Stage 5: Assess (10 minutes):

- Present a final health-related challenge or task where participants can assess the study, case scenario, or even their own thought processes through the previous stages.
- Utilize collaboration tools such as shared documents, virtual whiteboards, or breakout rooms to facilitate the application stage.
- Participants can submit their answers or solutions through the online platform or verbally share them during the session.

Conclusion and Debriefing (5 minutes):

- Gather all participants back to the main video conference or online meeting room.
- Facilitate a group discussion to reflect on the challenges and their experiences throughout the Virtual Escape Room Challenge.
- Share key takeaways, discuss the application of the 5 A's, and acknowledge participants' achievements.
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THANK YOU

Have fun!