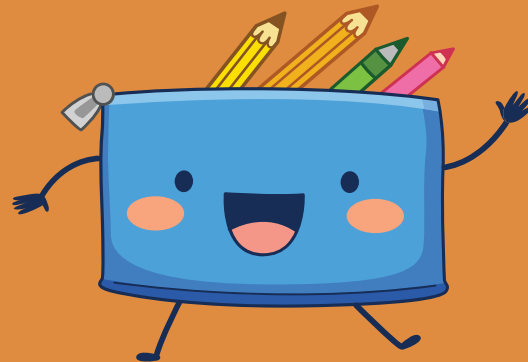
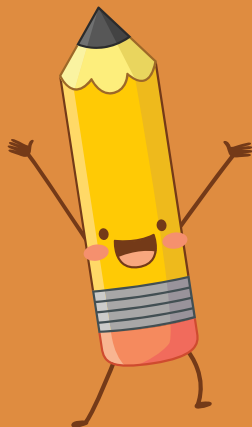




Understanding SDGs through game-based approach in Macau: Benefits and challenges

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Agenda

01

Applied game-based approach to
SDG education in Macau

02

Reflection: Benefits

03

Reflection: Challenges

04

Recommendations

SDG Hero Game, UNU AI conference, 2025



Macau & SDG education

- Strong and diversified community (*12,000 social associations/organizations by 2024*)
- Major concern sustainable development, education, social service, environmental protection, youth and women issues
- Increasing SDG-related initiatives (*e.g. beach clean-up, sustainable food recycling systems in hotels, different kinds of SDG games*)
- Traditional learning approach predominate
- Limited expertise on United Nations and SDGs (*regional issue*)

All creates a strong need for more structured and engaging learning approaches to enhance public understanding of SDGs.





Integrating games into SDG education

Knowledge sharing

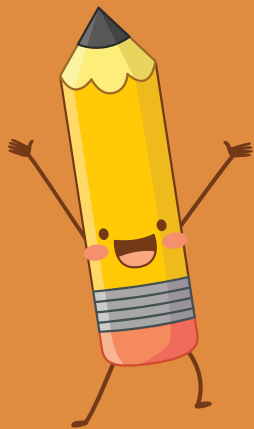


Reflection

- Awareness
- Knowledge
- Skills
- Behaviours

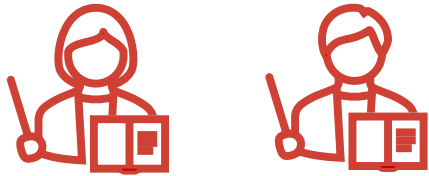


How the workshop is structured





Key roles



Trainer + (instructor)

A trainer can play multiple roles



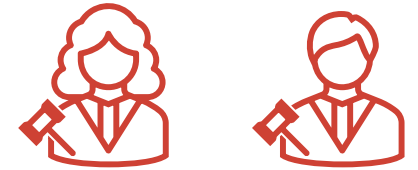
Assistant

(if applicable) Distribute the awards/badges to the winning group, maintain the order, facilitate the discussion/group work



Participants

No age limitation
Group work
(7 people/group)



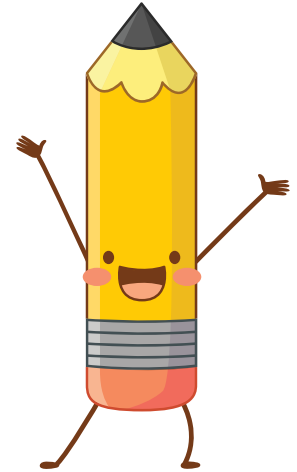
Judges

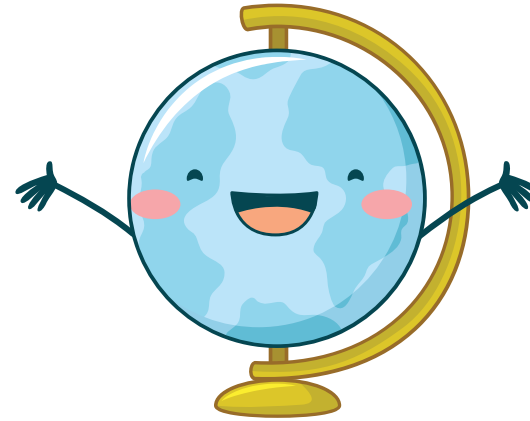
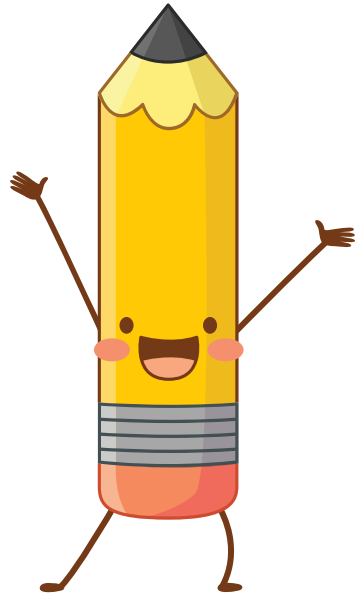
(if applicable) Invite external experts to join the presentation and evaluation



Facilitating role

1. Design the training
2. Guide participants step-by-step to design the game
3. Facilitate the group discussion
4. Provide real-time feedback
5. Comment and evaluate the group work





Participants are required to:



- Apply what they learn to (designing a game) within group
- Present (game) publicly
- Evaluate and comment other (games)



Collaboration: Trainers and participants

Reflection

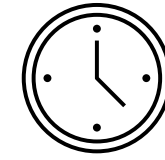
Reflection goes beyond the knowledge and skills acquisition:

- Awareness
 - Knowledge
 - Skills
 - Behaviours
- *Learning experience*
 - *Teamwork*
 - *Leadership*
 - *Team competition*
 - *Learning culture*
 - *Critical thinking*
 - *Others*

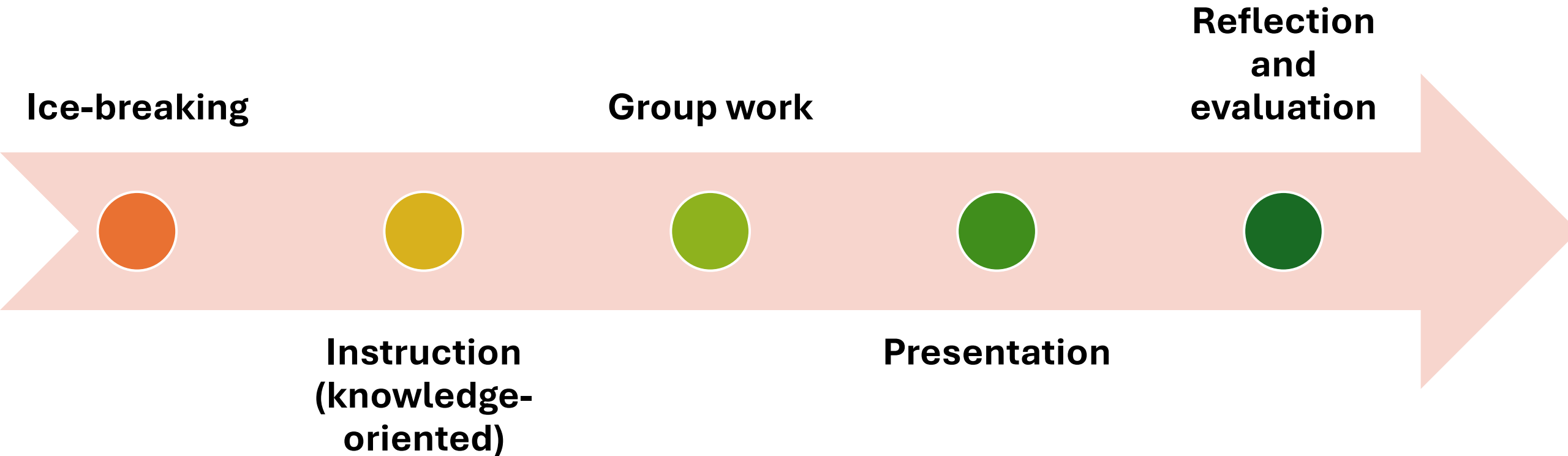




A structured learning process



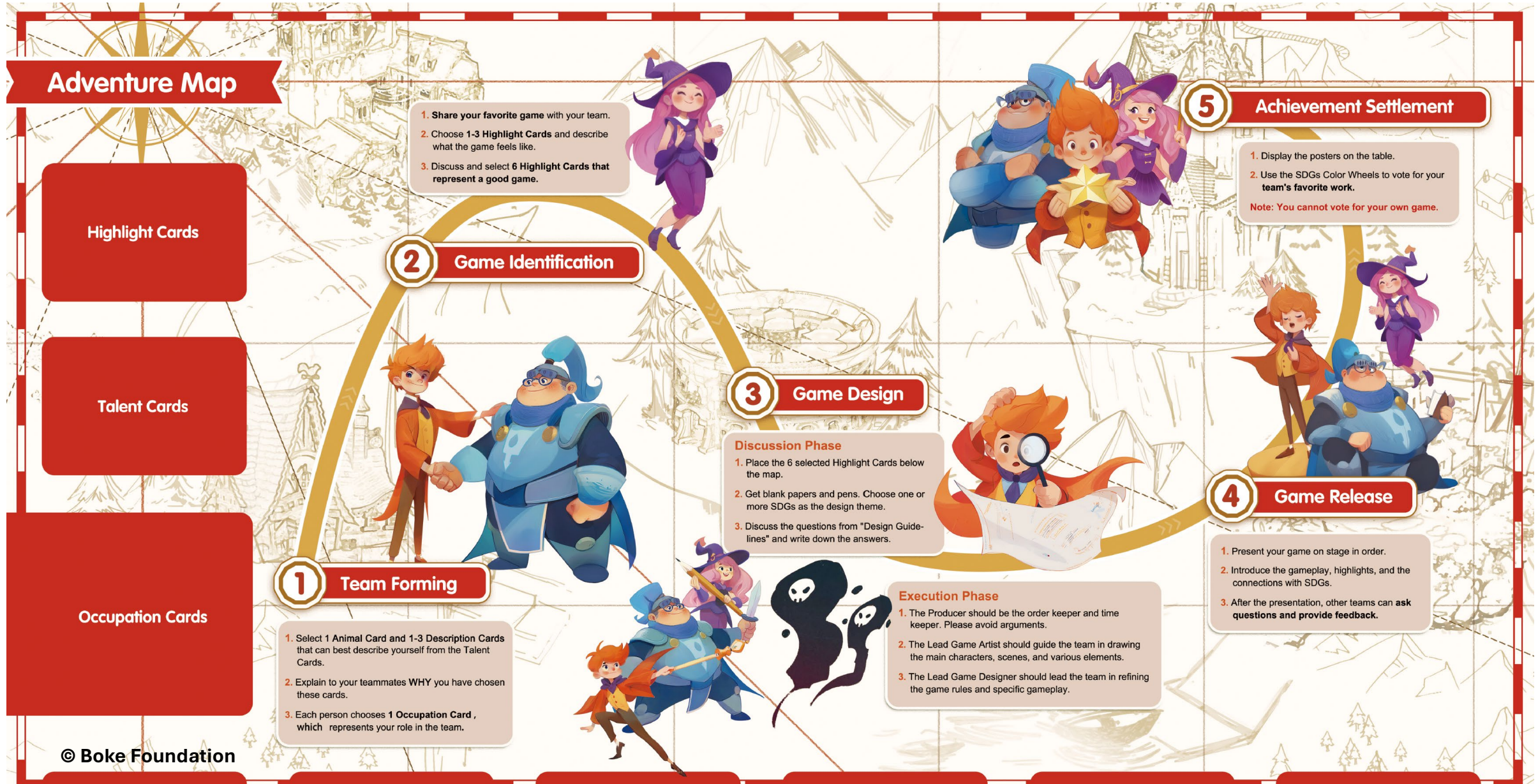
2 to 2.5 hours



Set rewards for each stage, with cumulative results determining the final winner



A structured process (SDG Hero)







The composition of participants matters less than having clear structure and guidance



Reflection - Benefits

- Flexible integration games: different games can be used at different stages.
- High level of engagement through discussion: participants actively share and exchange ideas
- Flexible learning outputs: game design, SDG campaigns, proposal, advertisements, and other creative formats
- Effective in mixed groups: no restrictions in age, background, and experience
- Reflection enhancing learning: peer evaluation, voting, and feedback are key highlights
- Participants like discussing, and very value their sharing thoughts
- Captures participants' SDG priorities through simple surveys



Reflection - Challenges

- Difficult to integrate knowledge and gameplay: teaching and playing can easily become disconnected
- Time constraints: limited time to cover both knowledge and interaction
- Lack of standardized SDG content, heavily depends on teachers' knowledge, expertise and research ability
- Scalability depends on facilitation: more participants require more instructors.
- Ensuring active participation: Ice-breaking and group dynamics require careful design
- Balancing learning and competition: participants may focus more on winning than learning
- Localized/contextualized: increase participants' interests

Teaching module

- Knowledge sharing + gaming + reflection: reusable teaching module
- Not limited to one game, but adaptable to different game formats
- Needs to be tailored to local context (e.g. Macau's community networks)





Learning structure

**Knowledge
sharing**

+

Game

+

Reflection



Thank You

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