



Joy in Inventing Games

TGfU 40th Anniversary Webinar

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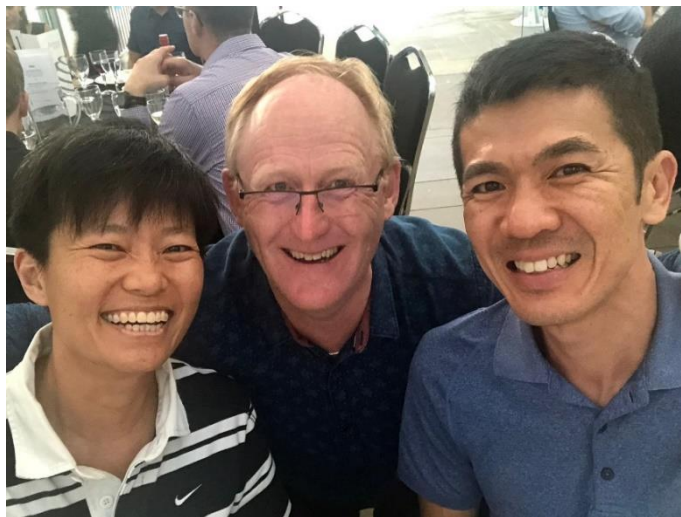
Singapore



About me



- Started teaching in 2000
- Joined PESTA in 2012
- M.Ed in 2015 at UBC
- Became Master Teacher in 2016
- In-service teacher professional development
- Interest includes game-based approach, inventing games model, teacher beliefs, student-voice



Focus of the sharing

- Understand the IG process and focus
- What students learned in IG
- Points to note when implementing IG

What is the purpose of games education?

Why Inventing Games?



“As students negotiate, debate, overcome conflict, and navigate through problems together while inventing games, they enter a microcosm of community life, encountering the challenges and joys of civic responsibility.”

(Butler, 2016)

Why Inventing Games?

“An inventing game learning context results in better understanding not only of game structures, game play, and situated skills, but also of self and others, as well as issues of social justice and what makes democracy work”

(Butler, 2016)

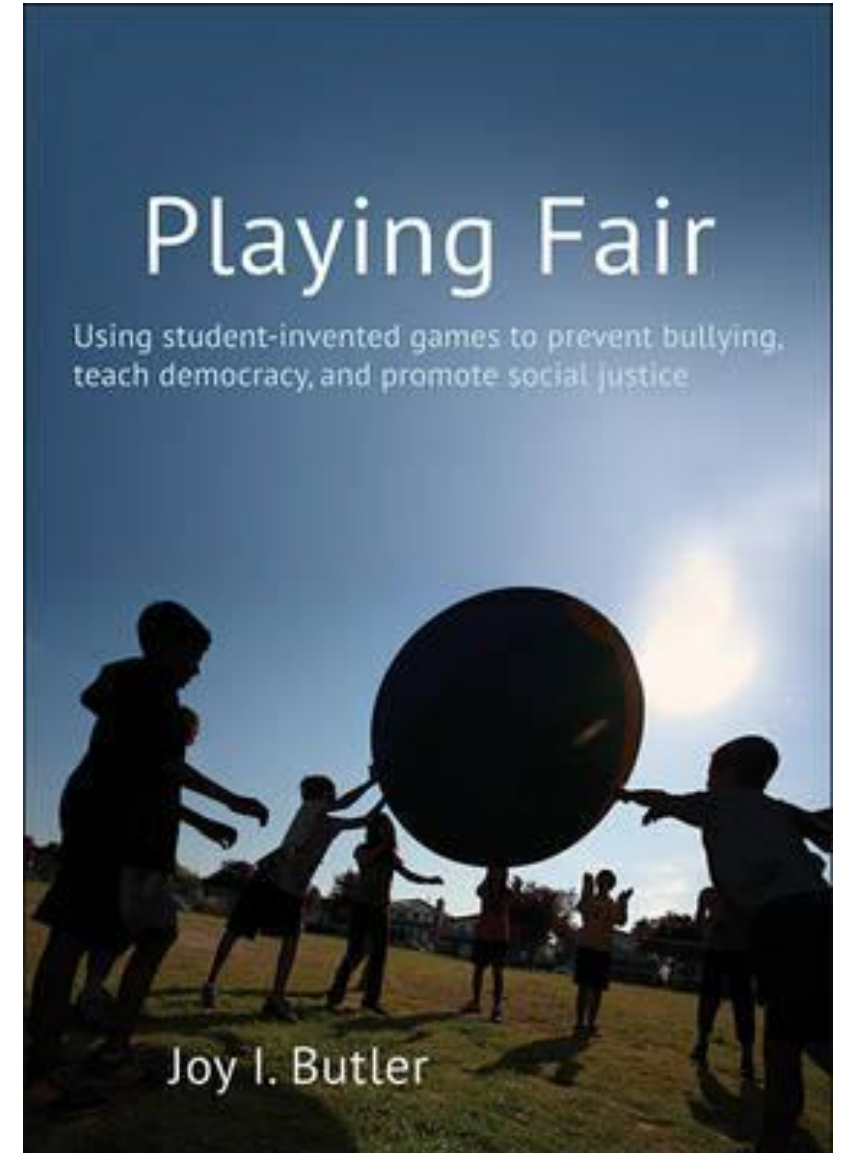


Table 2. Recommended Stages for Grade Levels						
No.	Stages	3–4	5–6	7–8	9–10	11–12
1	A. Intentions and expectations: Establish group system, roles, and a policy for making decisions	X	X	X	X	X
	B. Define invasion games	X	X	X	X	X
2	Establish the game through democratic process	X	X	X	X	X
3	Play the game	X	X	X	X	X
4	Refine the game	X	X	X	X	X
5	Identify the role of coach		X	X	X	X
6	Establish the official's role		X	X	X	X
7	Showcase all the games	X	X	X	X	X
8	A. Identify defensive strategies			X	X	X
	B. Refine defensive skills			X	X	
	C. Identify defensive transpositional strategies (defense to offense)			X	X	
9	A. Identify defensive strategies			X	X	X
	B. Refine defensive skills				X	X
	C. Identify offensive transpositional strategies (offense to defense)				X	X
10	Connect students' invented games to established national invasion games			X	X	X

Butler, J. (2013). Stages for Children Inventing Games, in *Journal of Physical Education, Recreation and Dance*, 84:4 48-53

What did we do?



The winning team with their form teachers



Scan this QR code for a short video on
our inventing game journey

1. Focus of Inventing Game

- Invent a game that has the following elements: fun, fair, flow, for everyone (inclusive), safe, challenge
- Games concepts and skills necessary to play well
- Appreciating rules
- Importance of communication
- Group processes on decision making
- Working as a team
- Being kind

Inventing Games (Net-barrier) Resources





2. Creating a Community: Our Class Padlet

padlet

Joseph Ang + 20 • 9h

6F Inventive Games (Net Barrier)

Let us demonstrate care and respect to one another in this space here to maximise learning.


REMAKE SHARE

Group 1

+

3. 1st Trial Game

Rules:



ABA5FB49 EBAE 4C29 A202 66C8428EF...
00:37 video
padlet drive

3

Add comment

The Everlasting Flames (Group 2)

+

B6C2B383 4A64 493C AB40 2D7750BF5...
01:16 video
padlet drive

2

1 comment

PESTA SG 1m
Nice game! I am wondering if it is too difficult for those who are not good with their foot? How would you modify the game to make it playable for them to ensure flow? Mr Teng

Add comment

The Best of Ourselves (Group 3)

+

2. Qualities of a Good Team

Xinmin Primary School Inventing Game Unit

Annex B: Qualities of a Good Team

Team Name: Team The Best of Ourselves

Three qualities of a good TEAM

1. Resilience
2. Respect
3. Team work
4. Speak loudly

Briefly explain why did the team choose these 3 qualities?

We are chosen together. If we are not doing it as one team, we will not succeed.

What is one value that the team would like to focus on in this unit? (e.g. Respect, Care, Responsibility, Resilience)

Resilience

How does the team intend to work on this value?


1. not giving up
2. modify the game

JXXQ (Group 4)

+

1. the hula hoop is a barrier.
2. we cannot pass through to the other person's side.
3. the ball cannot go under the hula hoop

*we should try to throw to open space




Group 5

+

1. Group Name and Logo

Stand a chance to win extra sportsmanship cards with meaningful descriptions of your Group Name and Group Logo.



2. Creating a Community: Our Class Padlet

padlet

Joseph Ang + 46 • 13h

6F Inventive Games (Net Barrier)

Let us demonstrate care and respect to one another in this space here to maximise learning.

REMAKE SHARE

Conquerors (Group 6)

+

why your group decide to change your game totally from the previous version? While it is good to explore, at certain point the team need to converge on a version and refine it. This version 3 game looks quite like what some groups are already doing. In terms of uniqueness, it is not so unique compared to your version 2, which is quite promising. DO bring this back to discuss with your group on Monday. 2 more lessons before we need you to submit the final version for voting! Mr Teng

Anonymous 2d
A rather interesting game but it could use a higher net and very unique- Mother of Jonathan

High Voltage (Group 7)

+

Anonymous 13h
I like version 2, with challenge of trying to catch with the cone. Let your creative juices flow! Looking forward to the following versions - chloe

Anonymous 13h
I like version 2, with challenge of trying to catch with the cone. Let your creative juices flow! Looking forward to the following versions - chloe mum

Add comment

Quartet (Group 8)

+

Group 9 Version 2

by Ang Wei Loon Joseph
YouTube

2

1 comment

PESTA SG 18d
I like your presentation :) A question. What if a player is not good with kicking and the game breaks down? At what point can the player have the option to make the game easier for him/her? Think of improving the flow for students who may not be so good with their feet. Mr Teng

Add comment

QHKE (Group 9)

+

2 comments

PESTA SG 10d
Thank you QHKE! I like the presentation! Very confident and entertaining :) About the game, do you realise that the flow is not very good? In addition, kicking may still be a challenge for some students. I wonder if changing the ball may help? For example, a beachball? Mr Teng

Anonymous 2d
I think Mr teng is right the game does not have a flow-Enthressan father

Add comment

The Jokers (Group 10)

+

PESTA SG 10d
I really like your game Jokers! But I wonder why you decide to change to this ball because it seems that it doesn't bounce well, which makes it difficult to send across as you have rightly pointed out. THIS will affect the flow of the game. I wonder if volleyball is still a better choice? Good job so far! Mr Teng

Anonymous 7d
yeah the volley ball would be a better choice. thank you for the opinion.- yuelel-

Anonymous 5d
The games looks fun. Good job and keep it up! - yuelel's mum

2. Creating a Community: Our Class Padlet

padlet

PESTA SG + 32 • 24h


Mayflower Sec Inventing Games Unit!

In this unit, we are going to showcase the creative talent of students from Mayflower Secondary! Everyone is unique and each of us is special in our own way! We are going to have lots of fun learning about ourselves, about each other and learn to work together in a team through inventing our own games!

Group 1 (A.W.Z.T.)

Anonymous 4d

Version 1



DBEED086 696B 4262 855F 419A351BD...
01:25 video
padlet drive

1

2 comments

Group 2 (AWB)

A593FC50 5108 40FD 8395 95441A85B...
00:27:07 video
padlet drive

0

2 comments

Anonymous 5d

I like that you all were creative especially the cones. I would have never thought of using the cones in my game lol -Jasper

- 2d

Nice how you used cones to create your game :D I never thought that hitting cones over would be an interesting idea so this idea sounds really unique

Group 3 (Tortie)

Anonymous 5d

GNITSERETNI STI TI EKIL IEHT EKIL I

Anonymous 5d

The game seems interesting but it is abit too similar to netball, so I think your should make your game more unique-Jessalyn and Kai Rong

Anonymous 5d

dosent seem very original but it is still quite intrsting


PESTA SG 4d

I like it that you allow different ways of sending but I wonder if the flow can be better if some rules are in place, like not allowing players to go too close to the net to throw the ball downwards,

Group 4 (DKJR)

Anonymous 4d

Version 1



76F60422-0A12-4963-A970-45564ADF2...
04:48 video
padlet drive

1

3 comments

Group 5 (STARS)

Anonymous 4d

I like the idea of using frisbee and beanbag. I wonder if the flow can be better if you allow players to hold the frisbee disc using 2 hands, or choose a different object like paper ball or sock ball? Experiment with different objects and equipment! This game has potential to be a very fun game. Mr Teng

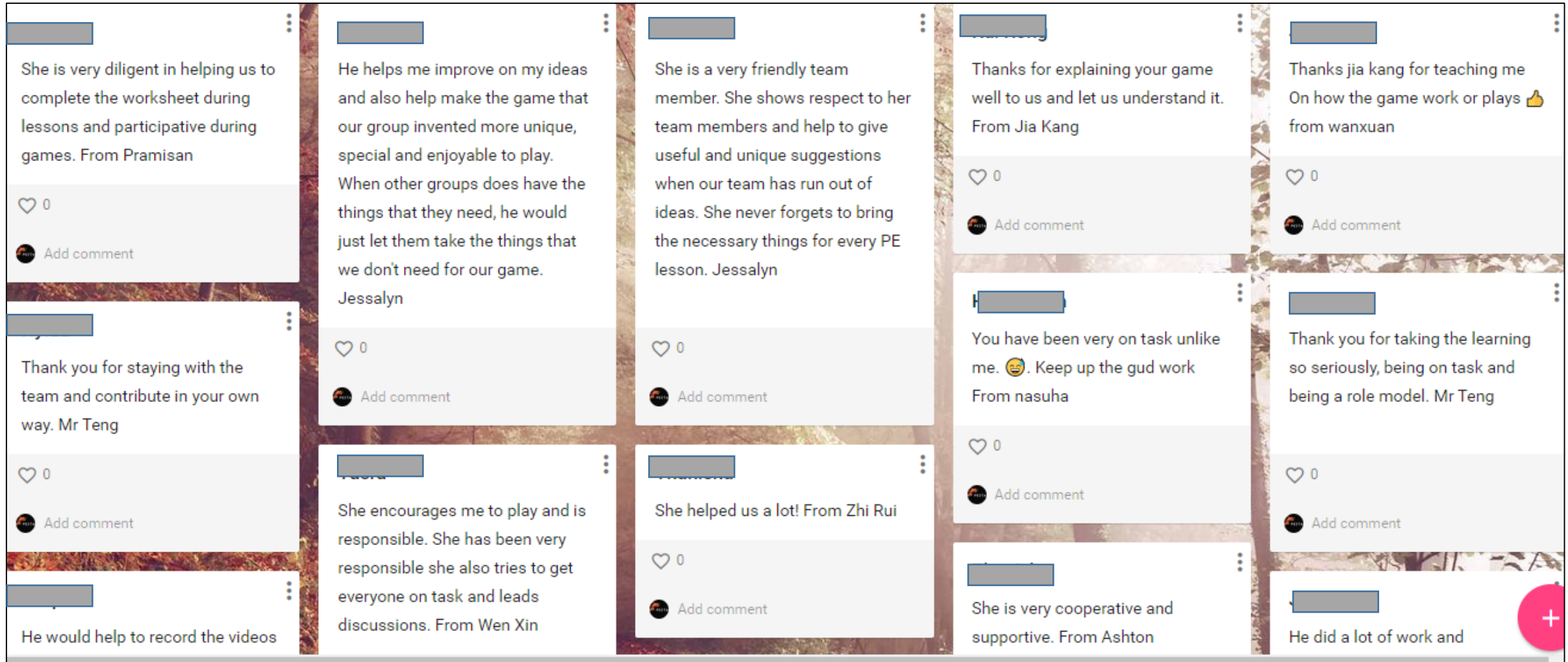
Anonymous 3d

I agree with Mr Teng, the game seem very funny but I think using different objects may be better for certain people -Kai Rong

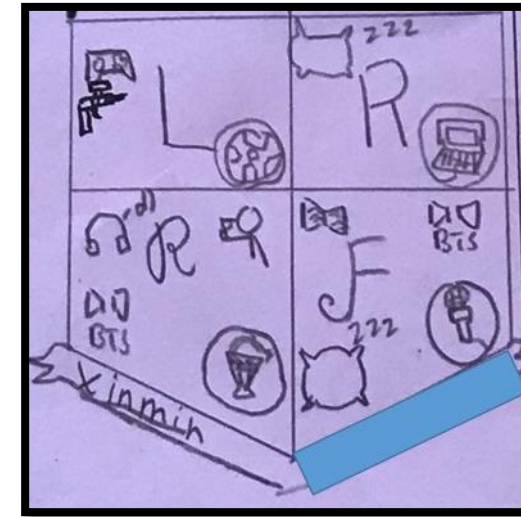
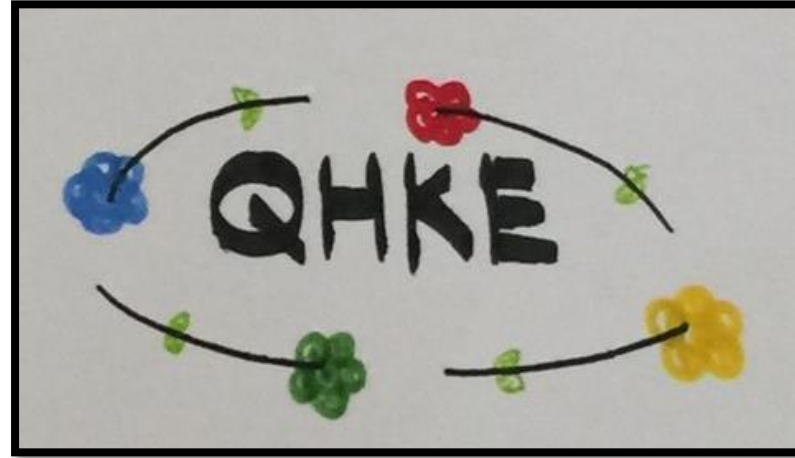
Anonymous 3d

I likes this game but I think that if you guys work on it more and maybe add more challenges it can be more fun - Ranice

2. Creating a Community: Our Class Padlet



3. Assigning Roles and Creating an Identity



3. *Assigning Roles and Creating an Identity*



We need cooperation in order to get things done when working in a group. Fun, laughter and humor are bound to be present throughout this project. While everyone has their significant roles, we should all have some leadership to take charge of a situation if needed. Unless you want all hell to break loose, organization is a must.

4. Creating a Fun and Conducive Learning Environment



Rewards



Music



Empower

5. Scaffold their Learning



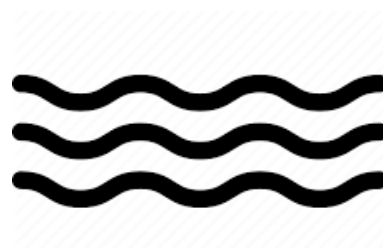
Primary rules of net-barrier games



Fun



Fair



Flow



For
everyone



Safe

5. Scaffold their Learning



6. Creating Group Rules

Team Name: High Voltage (Srp 7)
Three qualities of a good TEAM
1. Respect
2. Resilience
3. Teamwork
Briefly explain why did the team choose these 3 qualities?
1) We need to respect each other so that we can communicate and listen to each other
2) We need resilience because we would not advance if we keep on giving up on upcoming new activities.
What is one value that the team would like to focus on in this unit? (e.g. Respect, Care, Responsibility, Resilience)
Resilience
How does the team intend to work on this value?
1. We will try new games and methods
2. we would encourage one another if a member gives up.
3. We will play to the best we can and would not give up if we lose and practise more to improve our skills.

Annex C: Communication	
Group Name: Quartet	
Group Number: 8	
Three qualities of good communication that the team will abide by	Explain briefly how your team intend to do that
1. No vulgarities	We will not say the "S" word, nor the "B" word, nor "n" word, no racism in this peaceful community
2. Let other people have a say	We will take turns talking
3. One voice	We must listen to the person talking and not to interrupt by talking when someone is talking.

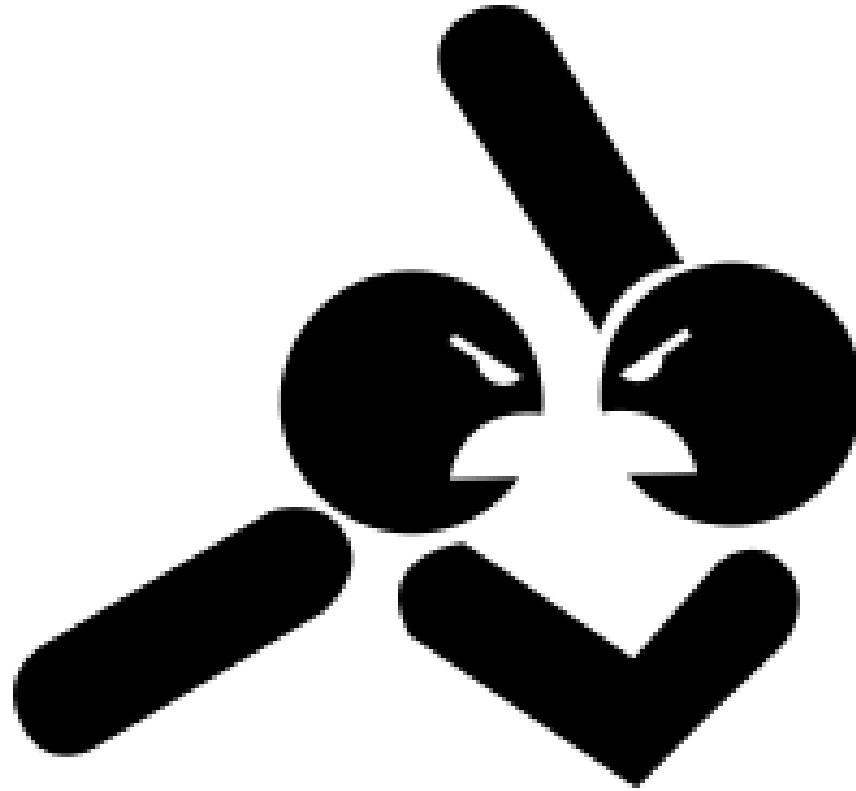
6. *Creating Group Rules*



6. *Creating Group Rules*



7. Intentionality of Design (E.g. Creating Moments of Aporia)



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8. Extend Learning to Beyond the Classroom

1. Can you recall an incident when a breakdown in communication which led to an argument or a not-so-pleasant experience between you and your friends or family members? What happened?
My classmate said I took his pen. I did not. He thought I purposely lied to him, then we argued. (It happened last year.)

*Name of that boy will not be revealed for privacy purposes

2. How could the breakdown in communication be avoided?

Instead of saying "I did not take it", I could say "I really did not take your pen, I swear. Let's look for it together!"

3. What is one thing you want to start doing to be a better listener/ communicator?

better listener



be quiet when the person is talking.
say my own opinions only after he/she has finished talking.

better communicator



say good things about them, if you have bad things to say, lie abit.
(it is totally fine to lie sometimes.)

8. Extend Learning to Beyond the Classroom

...every single one of you. But in order for us to support your learning, you need to help us understand you better. Take some time to answer these questions. These questions will help you apply what you have learnt to your everyday life.

Can you recall an incident when a breakdown in communication led to an argument or a not-so-pleasant experience between you and your friends or family members? What happened?

Yes, I recall an incident when a breakdown in communication led to an argument or a not-so-pleasant experience. It was this time where my friends wanted to plan out a birthday surprise for our teacher. Everyone had different views of the celebration and wanted different type of food. Then the disagreement began and we could not come to an agreement. And in the end the celebration did not go as plan.

2. How could the breakdown in communication be avoided?

I think we could separate the jobs so some people can choose the type of cake, others can choose the type of snacks and the rest could choose the beverage. By doing so, the breakdown in communication could then be avoided.

What is one thing you want to start doing to be a better listener/ communicate better?

I would want to actually listen to that person and check up on them regularly. When communicating, I should also voice out my opinions while discussing but at the same time consider other's views/opinions.

8. *Extend Learning to Beyond the Classroom*

1. Can you recall an incident when a breakdown in communication which led to an argument or a not-so-pleasant experience between you and your friends or family members? What happened?

There was an incident that I was suppose to meet my mother at the bus stop but I went home Striaight away instead.

I panic when the door~~s~~ was closed and it started to rain.

2. How could the breakdown in communication be avoided? My mother too, panic after waiting for me at the bus stop for 30 minutes.

I should pay more attention to my mother's instruction

3. What is one thing you want to start doing to be a better listener/ communicator?

I would want to pay attention when other people is talking to me.

8. Extend Learning to Beyond the Classroom

When was the last time someone was kind to you? Briefly describe the kind act and how you felt.

The incident happened when I was 5 years-old. I was wandering around the shopping mall with my face wet with tears as I looked around for my parents. Just then, a security guard approached me and asked me what happened. I told him that I was lost and that I could not find my parents. The security guard then comforted me and brought me to the information counter to make an announcement. Not long after, my parents came to the information counter to look for me. My initial sad face immediately lit up as I went forward to hug my parents. My parents then thanked the security guard and brought me home. I deeply appreciated the security guard's help and I am amazed at how just one kind deed can bring a smile to my face.

8. Extend Learning to Beyond the Classroom

1. How would you rate the performance of your team members for the roles that they are assigned (including yourself)?

Role	Name	Score (1-5)
Team Leader		4
Assistant Team Leader		4
Equipment Manager		4
Admin Manager		4

2. How would you rate the performance of the team as a whole in terms of team work?

4 (1-5)

3. What makes you say that?

We did not really have teamwork at the start. However, after a while, teamwork has improved alot and I think that we are willing to work together.

4. When was the last time someone was kind to you? Briefly describe the kind act and how you felt.

I cannot remember the exact time and date. My friends helped me with a few questions that I did not know how to answer.

5. What is one kind act you are committed to do by this Thursday?

There is no one kind act that I am committed to do by this Thursday. If someone needs my help, I will see what I can do to help them. These things just happen. If someone needs help, we should try and help them, have the initiative to do it. Have the kindness to do it too.

9. Anchor on Values and 21CC



Teamwork



Communication



Respect



Creativity



**Conflict
Management**



Resilient

10. Emphasise Collaboration



11. Constantly Seeking Evidence of Learning

Assignments

Padlet

Questioning



Focus Group Discussion

**Video
analysis**

**Peer
assessment**

Exit slip

Observations

**Pre and post
IG Surveys**

Self-evaluate

What did the Students Learn?

Are you a good team player?

Q1

In the inventing games unit, you will have a lot of opportunities to collaborate with your teammates.

Watch this video and answer the following questions:

[Read More](#)

Yes, I find this video very meaningful as it teaches us that everyone has a part to play in order to succeed. I learnt that even doing the smallest action to help, can make a great impact in the end. Thus, during PE or in group projects, even if my role seems to be the least meaningful, I can do it to my best ability and help the group.

[Read Less](#)

What did the Students Learn?

3. I admit that i am not very good at communicating with team mates as when i find that the idea is not very splendid i would not put it into deep consideration even though that idea may be good. But after these three weeks of inventing games learning about teamwork, i think i have improved with my communication with my team mates and with the weeks to come, i think at the end of this activity, i could rate myself 4-5.

[Read Less](#)

What did the Students Learn?

“One thing that I like about Inventing Games is that we can learn more about characters and improve ourselves to be a better person.”

“If everyone on the team has great ideas but cannot communicate well, the team will fail.”

“Being kind, being open to other's opinions and ideas and having good communication skills.”

What did the Students Learn?

"Now I know when to listen, stop talking and I know when to talk."

"Calm everybody down, listen to their opinions and give my point of view."

"Respect everyone; Don't be afraid to voice out your ideas; Be responsible and carry out your role well."

What did the Students Learn?

“1. Do not fight when there's a disagreement 2.be kind 3. do not use rude words.”

“To be respectful, to listen to each other and to care about each other.”

“1.Be kind 2.Be civilized 3.Do not put down others.”

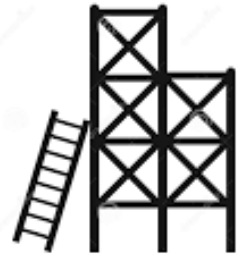
What did We Learn?



Ask the right question and
know when to intervene



Physicality of PE



Scaffold their
learning



Take time to manage
the conflict

What is Next?

- Inventing invasion games
- Implementing shorter inventing games experiences with younger students
- Presenting at TGfU Conference 2024!
- Contact me at teng_tse_sheng@moe.gov.sg if you are keen to implement IG and need someone to bounce off ideas

Conclusion

Whether or not IG will work for you depends very much on your beliefs on the following:

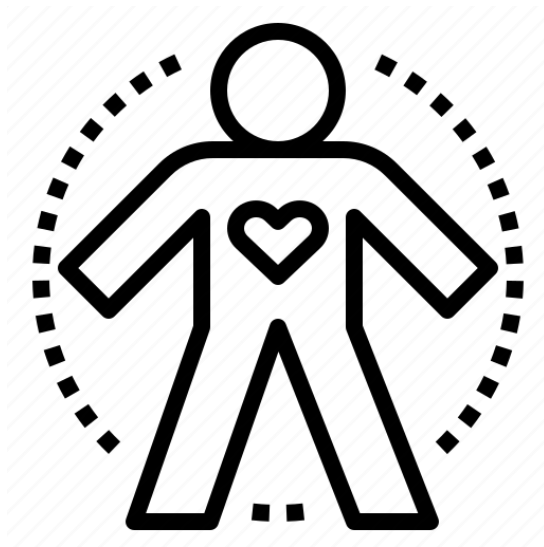
- The purpose of PE
- The role of teachers
- How students learn

“...inventing games are most effectively taught by teachers with an ecological complexity worldview... such teachers focus on emergent learning as they encourage learners to ask and consider critical questions to construct knowledge and meaning and develop a sense of ownership of their learning...”

(Butler, 2016, p.12)



Scan this QR code for a short video of a
game that one of the groups invented



“Inventing Games is not just a fun experiment. Rather, it is part of an integrated, considered physical education curriculum.”

(Butler, 2016)

What is the purpose of games education?

Question Time





Keep in touch!
teng_tse_sheng@moe.gov.sg