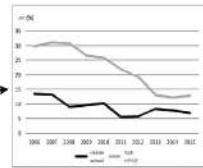


Case Study of K-12 program in South Korea - Applied by World Climate Focused on Environment Subject

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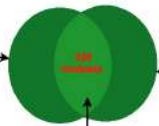
Background

- * Adoption rate of environment subject is decreasing even if concerns for environment is increasing
- * Interest in K-12 SD education is increasing.
- * SD/ST in K-12 in Korea with at least 8-hour long course since 2015
 - Elementary school : 189 students
 - Middle school : 1,012 students
 - High school : 163 students



<adoption rate of environment subject>

- * Interest in World Climate in Korea is increasing 20 events, 580 participants since August 8, 2016



- * Two birds with one stone solution
Environment subject with K-12 SD curriculum and games

GBR (Game-Based Reflection) Model



< Mammoth Game >



< Feedback Game >



<World Climate Game>



<Connection Game & Feedback Game>



<Feedback Game & workshop>



<Archetype workshop>

8 weeks or 16 hours curriculum for 1st grade of middle school

Week	Session	Topic	Contents	Activity
1	1	UN Climate Change Negotiation Game I	<ul style="list-style-type: none"> Playing World Climate Game Understanding the severity of the climate change Reflecting on delay effect 	game, worksheet, discussion, presentation
	2			
2	3	UN Climate Change Negotiation Game II	<ul style="list-style-type: none"> Playing World Climate Game (continued) Sharing feelings after game Reflecting on "Structure produces behavior." Discussing solutions for climate change issues 	game, worksheet, discussion, presentation
	4			
3	5	Hello! Systems Thinking!	<ul style="list-style-type: none"> Understanding the change I : Causality Telling causality from correlation The story of "The King's Weird Decision" 	worksheet, discussion, presentation
	6			
4	7	Connection Game	<ul style="list-style-type: none"> Understanding the change II : Feedback Understanding the interaction of complexity systems Getting hands-on experience of interaction 	play, worksheet, discussion, presentation
	8			
5	9	Archetype Workshop I	<ul style="list-style-type: none"> Understanding the change III : Delay effect Understanding two type of feedback (R, B loop) and delay effect with 'Ear Digging' case Learning Unintended Consequences Archetype. 	worksheet, discussion, presentation
	10			
6	11	The Mammoth Extinction Game	<ul style="list-style-type: none"> Understanding the change of extinct animals and ecosystem's change over time Making story from time-based behavior 	game, worksheet, discussion, presentation
	12			
7	13	Archetype Workshop II	<ul style="list-style-type: none"> Learning Shifting the Burden Archetype. Elaborating various cases by groups 	worksheet, discussion, presentation
	14			
8	15	Workshop for community issue IV	<ul style="list-style-type: none"> Presenting the final structure analysis about community issues and policy proposal 	worksheet, discussion, presentation
	16			



<CLD for Social and Environmental Problems>