

<2022 Disaster Prevention Education in Japan>



Locating Disaster Prevention Education in the global context

: Geographical reflections on safety education
in South Korea after 'Sewol' ferry disaster

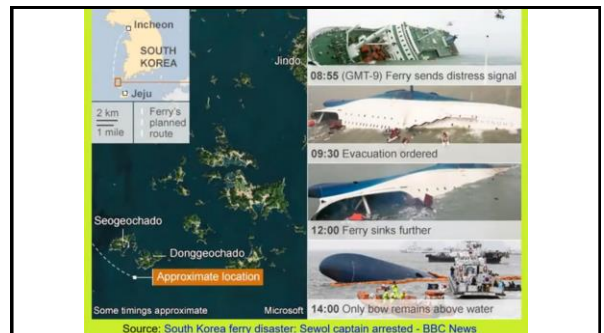
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Outline of content

- Shocking Sewol Ferry Disaster in 2014
- Booming Safety Education in S. Korea?: Critical reflections on school-focused Safety Education
- Geography really matters in disaster prevention education : Beyond superficial and text-based approach
- Exploring powerful geography education and fieldwork in UK, China, Norway
- Expanding horizon of safety education globally



Sewol ferry disaster...

- The sinking of the 'Sewol' ferry, occurred on 16 April 2014, when it was en route from Incheon towards Jeju in S. Korea.
- Out of 476 passengers and crew, 304 passed away in the disaster. Shockingly, around 250 students from Danwon High School in Ansan City, Gyeonggi Province died on their educational field trips.

- All South Koreans could do was watch, heartbroken, the desperate videos from students sending last messages to their families as cold waves filled the ship.
- "Mom, Dad, I love you," one boy said in a video recovered from a phone.
- The promises came too late for the overloaded South Korean ferry, too late for the 250 students who drowned when it capsized on a school trip to a resort island.

Sewol ferry disaster: Demands for answers go on - BBC News



Source: South Korea ferry disaster: Sewol captain arrested - BBC News

An overloaded ferry flipped and drowned hundreds of schoolchildren. Could it happen again?



Source: S Korea searches soul after ferry disaster | Financial Times

The 'Sewol' ferry disaster resulted in wide social and political reaction



South Korean President Park Apologizes Over Ferry Disaster



South Korea Ferry Disaster: President Apologizes for Sewol Response | Time

Social issues... political reactions

- The negligence of the ferry operator and the regulators who oversaw its operations as well as the actions of the irresponsible crews, especially the selfish captain, were severely criticized by the Korean public.
- "I will make sure that all this sacrifice was not for nothing by removing the layer after layer of corruption that has accumulated over the years, and by making South Korea a safe country," vowed the president at the time, MS Park Geun-hye.

The former South Korean President, Park Geun-hye, was prosecuted even for her late disaster response and poor administration.



- But as a stunned nation took stock after the Sewol ferry disaster, people hoped it might not be too late to make sure this could never happen again.
- Crucial new measures to prevent ships from being overloaded are often sidestepped. The coast guard has uncovered cheating at almost every step of the cargo-weighting process.



통아일보 | 오피니언

[기고/김이재]수학여행 금지가 능사는 아니다

입력 2014-04-23 03:00 | 업데이트 2014-08-19 15:23

18, 19세기 새로운 시장을 개척하기 위해 세계로 진출해야 했던 작은 섬나라 영국에서는 유럽대륙의 선진 문명을 체험하는 '그랜드 투어' 열풍이 불었다. 영국을 이끌 지도자를 양성하는 이튼, 킹스, 해로 등 명문 사립학교에서는 세계의 자연·인문환경을 배우는 지리와 과학 등이 중요 과목이었고, 청소년들은 배를 타고 거친 바다로 나아가 새로운 세상을 경험하는 여행을 통해 친구들과의 우정을 쌓고 용기와 자신감을 길렀다.



김이재 문화재단 이사·영인과학 교수

답사와 체험활동을 중시하는 영국 교육의 전통은 현대에도 계속되고 있다. 수학여행을 떠나기 전에 이송자가 체질을 먼저 단련하여 안전한 여행을 준비하는

How to deal with safety education in the revised National Curriculum and textbooks of elementary school

- After the Sewol Ferry disaster, the National Curriculum in S. Korea was revised to introduce new subject 'safe life' and reflect content related to safety education in diverse subjects.
- Let's analyze what content elements are related to safety education in elementary school textbooks and what level they are dealing with.



Table 1. Classification of seven standards of school safety education

Main Category (1)	Middle category (2)	Subclass (3)
Life safety	Safety of use of facilities and products	Facility safety
		Product safety
	Physical activity safety	Laboratory practice safety
		Physical and recreational safety
Traffic safety	Prevention of kidnapping and lost children	Prevention of kidnapping and lost children
		Identifying traffic signs
	Pedestrian safety	How to cross the street
		Pedestrian safety
	Bicycle safety	Safe bike ride
		Safe bike care
	Motorcycle safety	Causes and prevention of motorcycle accidents
		Caution while driving a motorcycle
	Car safety	Causes of car accidents
		How to prevent car accidents
Violence and personal safety	Public transportation safety	Public transportation safety, public transportation safety rules
		School violence
	School violence	Verbal/cyber violence
		Physical violence
	Bullying	Bullying
		Social violence prevention and countermeasures, prostitution prevention
	Sexual violence	Child abuse prevention and countermeasures
		Sexual violence
	Domestic violence	Sexual violence prevention and countermeasures, prostitution prevention
		Sexual violence
Drug · Cyber addiction	Drug addiction	Narcotics harm and prevention
		Smoking harm and prevention
	Cyber addiction	Drinking harm and prevention
		High caffeine food harm and prevention

Drug · Cyber addiction	Drug addiction	Narcotics harm and prevention
		Smoking harm and prevention
Disaster safety	Cyber addiction	Drinking harm and prevention
		High caffeine food harm and prevention
	Fire	Internet game addiction
		Smartphone addiction
	Social disaster	Fire
		Safety rules in case of fire
	Natural disaster	Fire extinguisher use and measures
		Causes of explosion and collapse and countermeasures
	Occupational safety	Countermeasures in case of various serious accidents
		Countermeasures for floods and typhoons
First aid	Occupational safety awareness	Earthquake, heavy snow, countermeasures in case of cold wave or lightning strike
		The importance of occupational safety awareness
	Understanding and prevention of industrial accidents	Occupational safety culture
		Meaning and occurrence of industrial accidents
	Occupational disease	Prevention and countermeasures against industrial accidents
		Meaning and occurrence of occupational diseases
	Prevention and management of occupational safety	Prevention and countermeasures for occupational diseases
		Industrial accident management
	First aid by situation	Organism
		Wear protective equipment

Fieldwork is essential...

- The manual-based safety education and simple swimming practices in the in-door swimming pool are not enough for survival. No matter how well you swim, you are getting closer to death if you are heading toward the open sea, not land.
- Improving safety education with help of geography educators in the real field can be essential to overcome the limits of superficial practices in the classroom.

A Study on the Current Situation of Safety Education in Elementary Schools and Improvement of Teaching Safety in Social Studies Education

- An analysis of the contents regarding elementary level safety education in the 2015 Revised Curriculum revealed that there should be a continuous and systematic curriculum in order to embrace safety concerns of elementary school surroundings
- ...but educational content should be organized to improve the ability to perceive the significance of safety issues and to resolve relevant problems accordingly.

- Teachers generally agreed with the purpose of the Seven Standards, **they were passive in the implementation of education and showed negative tendency to administrative works related to safety education**, so there is need to improve internal and external factors that hinder teachers implementation of safety education.

An Exploratory Study on School Safety Education after the Ferry Sewol Disaster - Focused on the Seven Standards for School Safety Education -

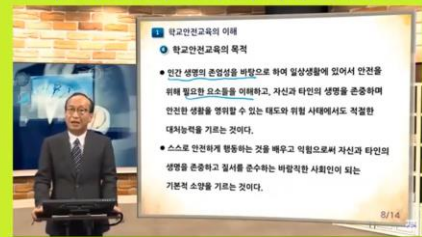
- In terms of policy execution, **the Ministry of Education needs to make efforts to establish a policy to expand the expertise of the teachers in charge of safety education and to establish a "school safety" education system** that supports the contents of the seven standards of education in cooperation with local related organizations and civic groups.

An Exploratory Study on School Safety Education after the Ferry Sewol Disaster - Focused on the Seven Standards for School Safety Education -

Analysis of the Recognition of School Safety Education by Background Variables of High School Students

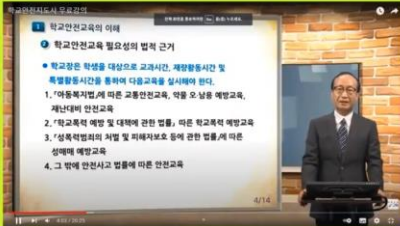
- High school students had relatively high experience in school safety education and recognized the necessity and importance of safety education more highly.
- Students' perception of 'Seven Standards for School Safety Education' was the highest in **violence and personal safety**, followed by first aid, life safety, traffic safety, disaster safety, occupational safety, and drug and cyber addiction.

School Safety Education Certificate 학교안전지도사 자격증 강의



Source: <https://youtu.be/DIDESr0bKv4>

No fieldwork... no real activities...



Source: <https://youtu.be/DIDESr0bKv4>

Only theory and text...
no activity in the real environment



<https://youtu.be/0p4MSyKlmz8>

All of Us Are Dead?: Trapped students must escape their high school which has become ground zero for a zombie virus outbreak.



Safety Experience Center



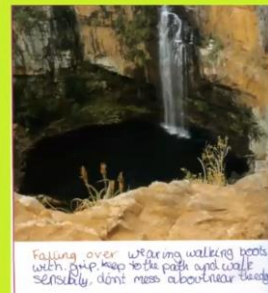


Girl, 10, used geography lesson to save lives

- A 10-year-old girl saved her family and 100 other tourists from the Asian tsunami because she had learnt about the giant waves in a geography lesson, it has emerged.
- Tilly Smith, from Oxshott, Surrey, was holidaying with her parents and seven-year-old sister on Maikhao beach in Phuket, Thailand, when the tide rushed out.

- As the other tourists watched in amazement, the water began to bubble and the boats on the horizon started to violently bob up and down.
- Tilly, who had studied tsunamis in a geography class two weeks earlier, quickly realised they were in danger. She told her mother they had to get off the beach immediately and warned that it could be a tsunami.
- She explained she had just completed a school project on the huge waves and said they were seeing the warning signs that a tsunami was minutes away.

The basic of all kinds of safety of education... geography!



학습자가
직접
확인하고
서술하는
위험 요인
(Risk
Assessment)

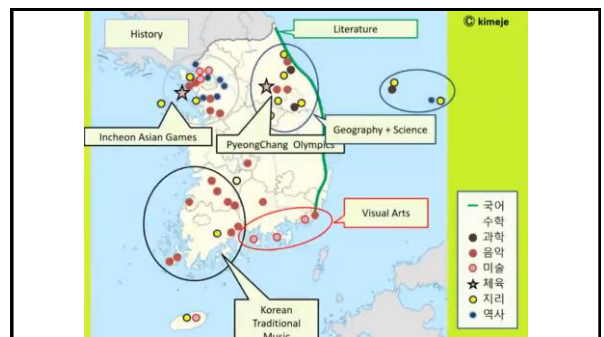
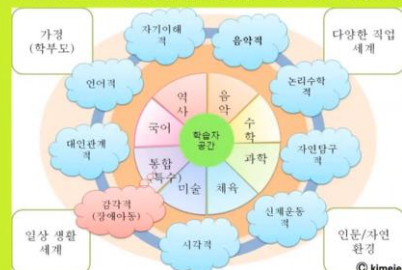
Map-reading skills



Sensory Fieldwork



(Multiple Intelligence + Geography) 學生空間 基盤 體驗活動 教育設計



No fundamental change...

- One maritime safety expert put it bluntly: "They haven't learned the lessons of the Sewol disaster after all the sadness and national trauma."
- After the 'Sewol' ferry disaster, the budgets for the Education Ministry and regional education offices were increased to offer better safety education.

Repeating accidents... Disaster

- In May 2019 a sightseeing boat carrying 33 South Korean tourists and 2 Hungarian crew members sank again .
- Most of them were reported to die on the Danube river of Budapest after the boat collided with a larger Swiss cruise ships.
- It reminds people that safety is the most basic and important factor in travel and also shows that any significant changes of travelling culture were not made.

Danube boat accident: More bodies found as vessel is raised in Hungary

11 June 2019

f t e Share



Harsh Reality...

- Officials have worked hard to improve maritime safety, adopting new regulations and tougher penalties for people who violate them. But rule breaking appears widespread, with the government making limited headway against an industry in which safety is still often an afterthought.
- Educational practices to prevent disasters and protect oneself on diverse environments are still poor...

Thailand's extraordinary cave rescue, summer 2018



12 boys went exploring in Thailand's Chiang Rai province with their football coach - and ended up trapped deep inside a cave underneath a mountain



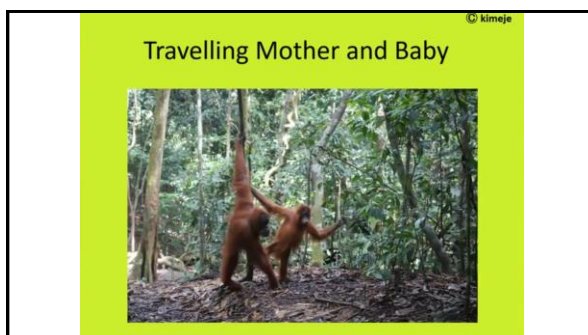
<https://www.bbc.com/news/world-asia-44791998>

British people recued them...



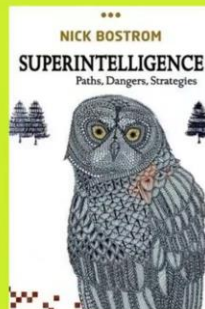
What Australian doctor Richard Harris learnt from his crucial role in the Thai cave rescue



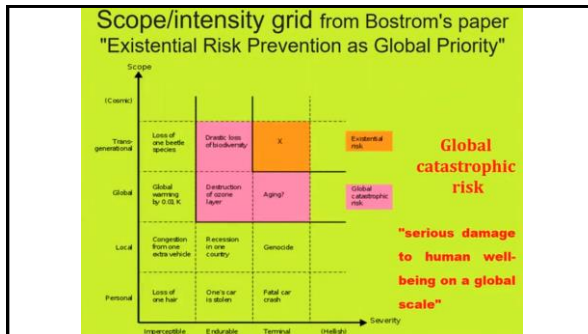


The Place of Geography in Arab/Muslim World

- Geography occupies an important place in both the elementary/secondary schools and universities of Arab countries.
- Main themes: Geography of the Arab World, Cartography, Physical Geography, History of Islam Civilization, Geography of Environments, Oceanography, Research in Geographic Discoveries, Economic Geography, Historic Geography, Fieldwork, World Geography, Urban and Rural Planning, Political Geography....



- Superintelligence: Paths, Dangers, Strategies by the Swedish philosopher Nick Bostrom from the University of Oxford



プレシピス

- The natural risks of the past — **asteroid impact, super-volcanic eruption, stellar explosion** — were highly unlikely.
- The human-caused risks of the present are legion, and likely. These include **nuclear war, climate change, engineered pandemics and artificial intelligence.**

THE PRECIPICE
EXISTENTIAL RISK AND
THE FUTURE OF HUMANITY
TOBY ORD

Global catastrophic risk

natural risk - a comet or asteroid impact

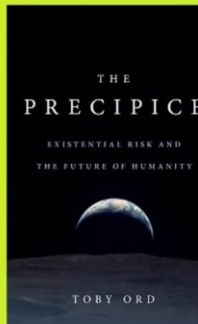
- A comet or asteroid impact event sufficient in scale to cause an impact winter that would cause human extinction before the year 2100 has been estimated at one-in-a-million.

"CNN iReport of an asteroid impact" by thebadastronomer is licensed under CC BY-SA 2.0

Super-volcano

- Moreover, large super-volcano eruptions may cause a volcanic winter that could endanger the survival of humanity. The geological record suggests that supervolcanic eruptions are estimated to occur on average about every 50,000 years, though most such eruptions would not reach the scale required to cause human extinction.
- Famously, the super-volcano Mt. Toba may have almost wiped out humanity at the time of its last eruption (though this is contentious).

- Human extinction is much more likely to happen this century than in any of the other 2,000 or so centuries in which humans have been on Earth.
- To be precise: for most of that time there was **only a one-in-10,000 chance of an existential catastrophe**; now there is a **one-in-six chance** — **precisely the same odds as a game of Russian roulette.**



The Precipice プレシピス : Existential Risk and the Future of Human

- Ord argues that humanity is in a uniquely dangerous period in its development, which he calls the Precipice.
- **Beginning with the first atomic bomb test in 1945**, the Precipice is characterized by unprecedented destructive capability paired with inadequate wisdom and restraint.

Likelihood: Natural vs. anthropogenic

- Humanity has existed for at least 200,000 years, over which it has been subject to a roughly constant level of natural risk. If the natural risk were high, then it would be highly unlikely that humanity would have survived as long as it has.
- Anthropogenic existential risks are (much) more likely than natural risks. A key difference between these risk types is that empirical evidence can place an upper bound on the level of natural risk.

Global catastrophic risk

Anthropogenic risk, a relatively recent phenomenon

- Humanity has only survived 75 years since the creation of nuclear weapons, and for future technologies, there is no track record at all.
- This has led thinkers like Carl Sagan to conclude **that humanity is currently in a 'time of perils'—a uniquely dangerous period in human history**, where it is subject to unprecedented levels of risk, beginning from when we first started posing risks to ourselves through our actions.

Global catastrophic risk



"Global Warming my arse" by therapysessions is licensed under CC BY 2.0

This concept of **existential catastrophe** is strictly defined as a permanent, irreversible loss of potential.

The Precipice [ブレンピス](#) : Existential Risk and the Future of Human

- The Cuban Missile Crisis in 1962, which leaders at the time thought had a 10-50% chance of **causing nuclear war**, was the closest humanity has yet come to self-destruction in its 200,000-year history.
- the Precipice is likely to last no more than a few centuries, as humanity will either quickly develop **the necessary self-control or succumb to the rapidly accumulating risk of catastrophe**.

Response

- Ord states that humanity spends less than 0.001% of gross world product on targeted existential risk reduction interventions.
- He argues that **motivation to fund such interventions is limited by insufficient global coordination**, which could be improved via specialized global institutions.

- Moreover, interventions such as **governance of dangerous emerging technologies may inherently require increased global coordination**.
- Ord outlines a number of policy and research recommendations intended to **reduce existential risk**. He also explores several ways individuals can contribute to **existential risk reduction**, such as selecting high-impact careers, effective giving, and contributing to a public conversation on the issue.

