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To cite this version:
Arnaud Delebarre, Guanghua Wei. Analysis of a Controversy for Education to Sustainable and Acceptable Processes, Products and Services. 13th Society And Materials International Conference, May 2019, Pisa, France. hal-04031162

HAL Id: hal-04031162
https://hal.science/hal-04031162
Submitted on 15 Mar 2023

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ANALYSIS OF A CONTROVERSY FOR EDUCATION
TO SUSTAINABLE AND ACCEPTABLE
PROCESSES, PRODUCTS AND SERVICES

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CONTEXT

• The Ecole des Mines de Paris (MINES ParisTech) introduced an exercise for the training of its engineering students about 25 years ago: Description of Controversies

• The Engineering and Environmental Management Mastère (IGE) led by the ISIGE and the CSI of the same school, offers its students the exercise "Analysis of an environmental controversy"

• These exercises are about 40 hours of work per student for 4 months in teams of 3 to 5. The evaluated deliverables are a website, a report, and/or an oral defense

• Chinese students enrolled in a "French-style" engineering school at the Shanghai Jiao Tong University trained to the same exercise

SKILLS TO BE LEARNT

• Energy and Environment and Management:
  - Being scientifically right and rationally is not enough
  - New technology development for energy production or use
  - Difficulty to disseminate a technology or to make a project acceptable

Human and Social Sciences:

  - Assess the society acceptability
  - Identification of stakeholders and their arguments

Project Life:

  - Team Building and Organization
  - Brain Storming
  - Reporting and Communication

CONTROVERSY SUBJECTS SELECTED DURING SPEIT SESSIONS

Three sessions of Controversy at SPEIT since 2017

• Session 2017 :
  - Taishan Nuclear Power Project (3 students)
  - Does the development of electrical satisfy Chinese market (3 students)
  - Electrical Vehicle, a solution ? (3 students)

• Session 2018 :
  - Ordures ménagères : un projet de centre d’enfouissement technique à jeter ? (4 students)
  - OFO : des vélos pas si écolos ? (4 students)

• Session 2019 :
  - La voiture électrique en Chine, pas si propre ? (3 students)
  - L’acier de Tangshan est-il le Bon, la Brute ou le Truand ? (2 students)

SOME CONTEST SUBJECTS AT MASTÈRE IGE

Some Controversy Subjects in Engineer cursus

• Viande artificielle : "Frankenburger" ou produit d’avenir ?
• Travail dominical et emploi
• Ecole et inégalités
• Anonymat du don de gamètes
• Pas d’écrans avant trois ans
• Le catharisme n’a jamais existé

CONCLUSIONS

• A controversy study is feasible in China with Chinese stakeholders of different opinions and expressions
• Chinese students who may not appreciate Social and Human Sciences at such a ratio of a French style syllabus in Engineering appreciated the exercise

ACKNOWLEDGEMENTS

• The ROSTOCK-H Project for its funding to SAM13 participation
• V. Lenglart and M. Akrich for their help in implementing controversies at SPEIT