筑波大学

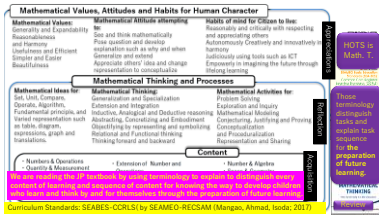
Free Program for SEAMEO School Network
from the University of Tsukuba, Affiliate Member of SEAMEO

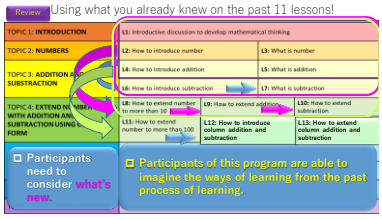
Teaching Mathematics to Develop Mathematical Thinking as Higher Order Thinking:
How do you teach? Why?

Lesson 12: How to Introduce column addition and subtraction

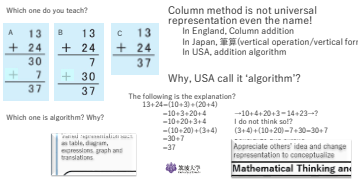
Isoda, Masami. Prof., Faculty of Human Sciences
Director of CRICED, The University of Tsukuba, Japan
With collaborations of
Aida Yap and Teh Kim Hong

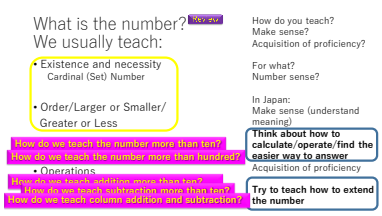
Adopting a 21st Century Curriculum — Revitalizing Teacher Education

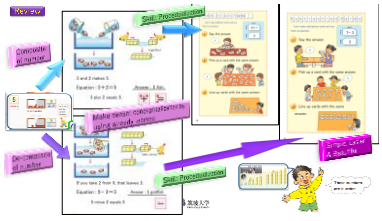


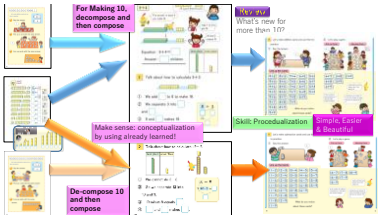


How do you teach column addition?

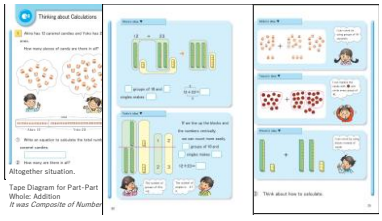


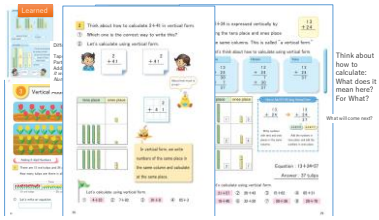




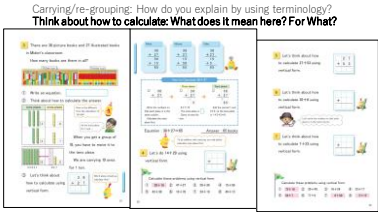


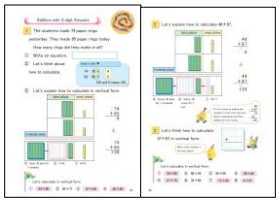
How column by using learned?

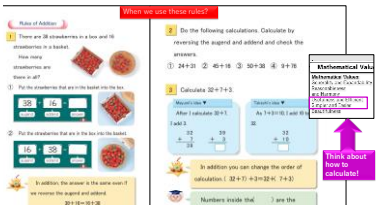




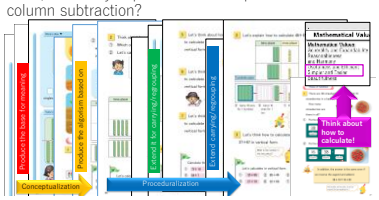
Carrying/re-grouping: How do you explain by using terminology?







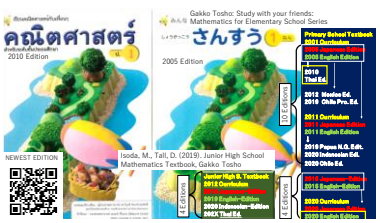
Then, How do you plan the task sequence for column subtraction?



Then, How do you plan the task sequence for column subtraction?

- Homework!!!

References



References

Masami Isoda, Raimundo Olfos edited (2020). *Teaching Multiplication with Lesson Study: Japanese and Ibero-American Theories for International Mathematics Education*. Cham, Switzerland: Springer. (Open Access)

Masami Isoda, Aki Murata (2020). *Study with your friends: Mathematics for Elementary School (12 vols.)*. Tokyo, Japan: Gakko Tosho.

Masami Isoda, Aki Murata, Aida Yap (2015). *Study with your friends: Mathematics for Elementary School (12 vols.)*. Tokyo, Japan: Gakko Tosho.

Masami Isoda, David Tall (2019). *Mathematics for Junior High School (3 vols.)*. Tokyo, Japan: Gakko Tosho.

Dominador Dizon Mangao, Nur Jahan Ahmad, Masami Isoda edited (2017). *SEAMEO basic education standards (SEA-BES): Common core regional learning standards (CCRLS) in mathematics and science*. Penang, Malaysia: SEAMEO-RECSAM. http://www.recsam.edu.my/sub_sea-bes/images/docs/SEAMEO-ASEAN-Curriculum-SEABES-CCRLS-Standards.pdf

Maitree Inprasitha, Masami Isoda, Patsy Wang Iverson, Ban Har Yap (2015). *Lesson Study: Challenges in Mathematics Education*. New Jersey, USA: World Scientific.

Masami Isoda, Shigeo Katagiri (2012). *Mathematical Thinking: How to develop it in the classroom*. New Jersey, USA: World Scientific

TEH Kim Hong, ISODA Masami, GAN Teck Hock (in printing). *Mathematics Challenges for Classroom Practices at the Lower Primary Level*. Penang, Malaysia: SEAMEO-RECSAM

ISODA Masami, TEH Kim Hong, GAN Teck Hock (in printing). *Mathematics Challenges for Classroom Practices at the Upper Primary Level*. Penang, Malaysia: SEAMEO-RECSAM

GAN Teck Hock, ISODA Masami, TEH Kim Hong (2Aug21). *Mathematics Challenges for Classroom Practices at the Lower Secondary Level*. Penang, Malaysia: SEAMEO-RECSAM