
Oral Presentation

SPECIALIZATION AND GENERALIZATION OF THE MATHEMATICAL CONCEPT BY MR. INATSUGI SEIICHI IN JAPAN

Karasawa Toshimitsu
The University of Manchester

I describe the nature of the "life arithmetic" which was a mainstream in the arithmetic education of Japan in the 1930s. Mr. Shigeo Katagiri said about it that it was the ideal arithmetic education as an integrated part of the "life" and "mathematical." On the other hand, Mr. Tsutomu Okano said about it that it was to train a attitude of "arithmetic view and arithmetic ideal" by using a "typical life" material. However, both men are evaluating Mr. Inatsugi Seiichi. This point is very interesting for us. However, although both of the above mentioned men cite the discussion of Mr. Inatsugi, Mr. Katagiri was positioned as the "true of life arithmetic." And, Mr. Okano was positioned as the highest reached point of the educational content research to oppose the black covered textbook, which lead to the academic mathematics starting from the amount. Therefore, I want to clarify the flow from the arithmetic reform movement of children centricity to the formation process green covered textbook by considering the claim of Mr. Inatsugi in the 1920s and 1930s. As the result, the next thing became clear. Mr. Inatsugi insisted that the mathematical contents of geometry and algebra were introduced into the elementary school by the influence of mathematics teaching movement. On the other hand, he was opposed to the arithmetic education of the children living center that does not live up to the system of the subject. Mr. Inatsugi had the goal to connect mathematics to the arithmetic according to the logical system of arithmetic. He was not only to induct the arithmetic theory from the life experience of the children. He was able to justify the teaching contents of the mathematics and advanced arithmetic by including a further generalization of the theory which is generalized once. In this regard, Mr. Katagiri was regarded as integration "life" and "mathematical principle" about the claim of "specialization and generalization of mathematical ideas" by Mr. Inatsugi. By consideration of this, I found that the integration which was tried by Mr. Inatsugi was not a "living" and "mathematical principle." The integration he tried was the learning along the lines of the subject to teach the "children centricity" and "higher mathematics." Also, Mr. Okano overlooked this attempt by Mr. Inatsugi for he was not watching a claim of arithmetic education of the children centricity. I say about what was claimed "specialization and generalization of mathematical ideas", why at this time. In 1926, "Elementary School Ordinance Enforcement Regulations" was amended in Japan. The geometry and the algebra were introduced in the high school. The languages which are "an experiment and survey is used" and the "It is made to

get used to handling of a chart, a table of compound interest, etc." was added in the elementary school. At the National Council of school teacher in 1929, the intention of the new national textbook compiled to replace the black covered textbook had been shown from the Ministry of Education in Japan. The opinion of Mr. Inatsugi was an arithmetic educational theory aiming at integration a children centricity and the mathematics which thought the arithmetic theoretical system as important.