

**SP - (16040) - EARLY CHILDHOOD TEACHERS' INQUIRY AND TECHNOLOGICAL PRACTICES AND COMPETENCE IN SCIENCE EDUCATION - COMPARATIVE STUDY**

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**Short Abstract**

Rapid development in science and technology make the development of scientific literacy and inquiry a necessity for all individuals. This has increased the need for teachers' competence to understand science principles and inquiry skills and use them in early childhood education (ECE). In addition, the increasing emphasis on science education in ECE has also indicated the essential role of technology in science education. Children's inquiry and digital skills are part of 21<sup>st</sup> century skills and essential from early stages. However, several previous studies have proved the lack of pedagogical use of inquiry and technology integrated practices in EC science education.

This study aims to explore the ECE teachers' experienced and enacted inquiry practices in science education as well as their views of their technological competence. Using the TPACK framework, the research will be conducted as a survey study in three countries, Finland, Australia and China during the spring 2021. The survey questionnaire has been created by the international research group and translated to the three different languages. Teachers will be invited to complete the surveys via existing networks.

In the presentation we will discuss the teachers' common practices of inquiry in science education and compare the potential similarities and differences between the countries in relation to teachers' technological competence in EC science education.