1. Record Nr. UNINA9910799226203321 Autore Moeed Azra Titolo Playful Science Investigations in Early Childhood: A Longitudinal Case Study Pubbl/distr/stampa Singapore: ,: Springer Singapore Pte. Limited, , 2024 ©2023 **ISBN** 981-9972-86-8 Edizione [1st ed.] Descrizione fisica 1 online resource (109 pages) Collana SpringerBriefs in Education Series Altri autori (Persone) DobsonStephen SahaSankari Soggetti Educació infantil Ensenyament científic Joc Cognició en els infants Aprenentatge per descobriment Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Acknowledgements -- Abstract -- Contents -- 1 Playing Teaching and Learning Through Science Investigations -- 1.1 Introduction -- 1.2 Science Education in Early Childhood -- 1.3 Teacher Knowledge and Practice -- 1.4 Teacher Professional Development -- 1.5 Play-Based Science Teaching and Learning in ECE -- 1.6 Science Investigation in New Zealand Schools -- 1.7 Science Investigations in Early Childhood Education -- 1.8 Early Childhood Education in New Zealand -- 1.8.1 Khanga Reo -- 1.9 Te Whriki-Our Bilingual, World Leading Curriculum -- 1.10 Two Approaches to Teacher Development -- Coaching and Mentoring -- 1.11 Learning Stories -- 1.12 Summary -- References -- 2 Research Design and Methodology -- 2.1 Theoretical Framework -- 2.1.1 Communitas

> -- 2.1.2 Sociocultural Theory -- 2.1.3 Social Constructivism -- 2.2 How the Three Theoretical Approaches Informed This Research -- 2.3

Research Questions -- 2.4 Methodology -- 2.5 Methods -- 2.5.1 Teacher Interviews -- 2.5.2 Mentor Diaries -- 2.5.3 Teacher Planning

-- 2.6 Data Analysis -- 2.7 Validity and Reliability -- 2.8 Researcher Reflexivity -- References -- 3 Teaching Science in Early Childhood --3.1 Introduction -- 3.2 From Fear to Fascination of Teaching Science --3.3 Analysis of the Above Three Teaching and Learning Experiences --3.4 Analysis of Fruit of the Week Activity Over the Period of the Research -- 3.5 Teaching as Inquiry -- 3.5.1 Growing as a Science Teacher of Little Children -- 3.6 Science Teaching Inquiry Cycle -- 3.6.1 Evidence of Planning and Gathering Evidence -- 3.7 Analysis of the Mentoring Data -- 3.7.1 Mentor Reflection Analysis --3.7.2 Analysis of Teacher Interview Data -- 3.8 Summary -- References -- 4 Research Evidence of Children Playing and Learning to Investigate -- 4.1 Introduction. 4.2 Presentation of Learning Stories and Teacher-Learner Learning Conversations -- 4.2.1 Children's Experiences of Different Approaches to Investigation -- 4.3 From Situational Interest to Personal Interest --4.3.1 Exploring Snails, Creating Situational Interest -- 4.3.2 Martin's Personal Interest -- 4.3.3 Cameron's Personal Interest in Growing Sunflowers -- 4.4 Summary -- References -- 5 Discussion of Emerging Themes -- 5.1 Emerging Themes -- 5.1.1 Understanding and Implementing the Intentions of Our World Leading Curriculum --5.1.2 Teacher as a Learner-The Key to Professional Development --5.1.3 Mentor as Both Teacher and Learner -- 5.1.4 Exploration, Playing, and Learning Science Through Investigation -- 5.1.5 Ways of Making Sense of Our Natural World Through the Adoption of Mtauranga Mori, Science, and Other Perspectives -- 5.1.6 Theories and Practices --Communitas, Socio-cultural Theory and Social Constructivism -- 5.1.7 Learning Stories to Learning Conversations -- 5.2 Summary --References -- 6 Conclusion and Final Thoughts -- 6.1 Introduction --6.2 Answers to the Research Questions -- 6.2.1 What Teacher and Mentor Interactions Support ECE Teacher's Science Teaching Pedagogy? -- 6.2.2 How Can Teacher Inquiry into Their Practice Build Their Science Knowledge, Knowledge About Science, and Nature of Science Investigation? -- 6.2.3 In What Ways Can Science Investigations Support Children to Make Sense of the Physical Natural World from a Scientific Perspective? -- 6.2.4 In What Ways Can Science Investigations Be Integrated into an ECE Learning Programme and Support children's Literacy Learning and Their Holistic Development? -- 6.3 Complexity of Policy, Implementation, and Practice -- 6.4 Final Thoughts -- References -- Glossary.