

ART MEETS SCIENCE IN EARLY LITERACY: A PRACTICE-LED MODEL FOR CULTURAL SUSTAINABILITY IN BILINGUAL FAMILIES

June Antson

June Sunny School, **Netherlands**

ABSTRACT

This practice-led, design-based research presents the development and early evaluation of "Anya and a Thousand Fish," a bilingual (Russian-English) picture book with a digital and printable resource ecosystem. The research explores how a bilingual picture-book ecosystem may create conditions supportive of cultural sustainability and socio-emotional engagement within bilingual family contexts. Art, narrative, and digital scaffolding support cross-language literacy and facilitate reflective dialogue. Methods include iterative prototyping, parent-child participation, and inductive thematic analysis. Five emergent themes reflect parent-reported perceptions of engagement with emotional vocabulary, family co-reading, cultural connection, extended learning, and creative expression.

The researcher served as book creator, session facilitator, and sole analyst, introducing potential bias mitigated through transparent documentation of methodology. The study acknowledges limitations in sample size, the short duration of the evaluation, and the fact that all findings are based on adult observations rather than direct assessments of the children.

Keywords: bilingualism, cultural sustainability, socio-emotional learning, picture-book

INTRODUCTION

Bilingual families often face challenges in maintaining minority languages and cultural identity within dominant-language environments. Heritage language retention depends on family language policy and intergenerational transmission, with the home serving as the cornerstone of language maintenance [1]. Yet families frequently lack accessible, high-quality resources combining minority languages with culturally responsive, emotionally nurturing content [2]. "Anya and a Thousand Fish" was developed to address this gap through a practice-led, design-based research approach [3], in which creative production is positioned as a source of new pedagogical knowledge. Central to this research is exploring how visual storytelling, metaphor, and digital scaffolding may support conditions for bilingual and socio-emotional engagement in early childhood.

The design was informed by Lakoff's conceptual metaphor theory [4], which holds that metaphors help us understand abstract ideas by linking them to concrete, embodied experience. To make abstract emotional concepts relatable for children, the book uses metaphors—fish for emotions and water for emotional states—paired with engaging illustrations.