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Children's cognitive story mapping: integrating child care work practice, art creation and cartography.

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Abstract:

This international children's mapping collaboration was initiated in 2022 by Circle of All Nations (CAN), Geomatics and Cartographic Research Centre (GCRC) Carleton University, [in Canada], National Association of Child Care Workers (NACCW) and Durban University of Technology (DUT) [in South Africa]. It integrates approaches from arts and humanities, social welfare and cartography in child and youth care work by engaging non-government child care workers and academic researchers in art story map creation with children and youth in South Africa and integrates children's cognitive story/sketch mapping practice as a methodology in child and youth care work; concurrently, the mapping process serves as creative therapeutic art practice.

The joint engagement and research in the compilation and presentation of the data and findings is leading to new dimensions in participatory mapping where children initiate the map creation activity with workers. The children's map visualizations of environmental and social realities, concerns and needs lead to a prioritization of issues for practice, program and policy development, including in child protection case management. Researchers complement the work with national and provincial digital maps that can permit locational analysis and focussed interventions.

The maps produced by the NACCW children reveal attention to such locational and temporal items as the following: *location* - homes, community, village, towns, schools, universities, safe parks, churches, graveyards, hospitals, clinics, sports; *environment/space/time* - global earth and local places; *environmental realities* - pollution, power and power outages, sewage, food, security, water, rivers, beaches; *climate change* - floods, drought, weather, extreme weather, storms; *safe and dangerous places* - access, boundaries, borders, no man's zones, trails; *transportation* - taxis, busses, walking, hitchhiking; *mental health* – impact of location, isolation, fear, community, abuse; *medicine wheel and cosmic* - nature, animal world connection; *relationships* - community, family, lost ones, teenage pregnancies, death; *dreams and aspirations* - personal, local and global environment; and *culture* - language, art, creativity, hobbies, sports.

In this initiative, (which evolved out of the International Cartographic Association's Biennial Barbara Pechenik Children's Map Competition launched by Taylor in 1993), children are not so much focussed on drawing maps with earth features as they are on producing cognitive story maps grounded in their locational realities. This represents an innovative cartographic breakthrough in our research. Taylor (2024) introduces the term *cognitive story mapping* to facilitate theorization in this zone of intersect of academic disciplines and multisectoral partners. The research presents a preliminary exploration of theoretical frameworks that support the collaborative bridge building between distinct domains of creative visualization, methodological practice and cartography, and is inclusive also of the integration of Indigenous, prior knowledge and grounded theory components in the knowledge generation.

Findings to date are examined via interrelated trajectories in line with the knowledge streams of the three disciplinary fields of social welfare, arts and humanities and cartography:

- Locational mind/concept story mapping as communicative methodology and interface in child and youth care work practice to promote responsive program, policy and advocacy;
- Analysis of a.) the creative principles and locational preoccupations in the children's maps; and b.) of art map presentation via the use of infographic, photoatlas (graphics/textual map collections), visualization formats and dynamic slideshows, to permit exploration of findings via the lens of graphic and semiotic (meaning in signs) cartography; and
- Map design, map production and map visualization, and output for geo-narrative storytelling, participatory collaboration and elaboration, and statistical and locational analysis.

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The practice holds potential for application in other social service sectors (for example, with seniors, those with learning and communication challenges, refugees, newcomers etc.) Today, national mapping organizations find themselves moving from being providers of information, through information infrastructures, to becoming providers of services in the creation of knowledge, with focus placed on the user and the needs and aspirations of the user. This will require increased attention to the voices of the new Indigenous and child map creators, to the usability of the geospatial information to provide appropriate knowledge indicators for the individual storytelling, as well as to the provision of accessible cartographic knowledge creation technology.

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