

A Qualitative Study Identifying the Complexities of Early Childhood Professionals' Use and Production of Data

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Abstract : The use of quantitative data to support policies and justify investments has become imperative in many fields including the field of education. However, the topic of data literacy has only marginally touched the early care and education (ECE) field. In California, within the ECE workforce, there is a group of professionals working in policy and advocacy that use quantitative data regularly and whose educational and professional experiences have been neglected by existing research. This study aimed at analyzing these experiences in accessing, using, and producing quantitative data. This study utilized semi-structured interviews to capture the differences in educational and professional backgrounds, policy contexts, and power relations. The participants were three key professionals from county-level organizations and one working at a State Department to allow for a broader perspective at systems level. The study followed Núñez's multilevel model of intersectionality. The key in Núñez's model is the intersection of multiple levels of analysis and influence, from the individual to the system level, and the identification of institutional power dynamics that perpetuate the marginalization of certain groups within society. In a similar manner, this study looked at the dynamic interaction of different influences at individual, organizational, and system levels that might intersect and affect ECE professionals' experiences with quantitative data. At the individual level, an important element identified was the participants' educational background, as it was possible to observe a relationship between that and their positionality, both with respect to working with data and also with respect to their power within an organization and at the policy table. For example, those with a background in child development were aware of how their formal education failed to train them in the skills that are necessary to work in policy and advocacy, and especially to work with quantitative data, compared to those with a background in administration and/or business. At the organizational level, the interviews showed a connection between the participants' position within the organization and their organization's position with respect to others and their degree of access to quantitative data. This in turn affected their sense of empowerment and agency in dealing with data, such as shaping what data is collected and available. These differences reflected on the interviewees' perceptions and expectations for the ECE workforce. For example, one of the interviewees pointed out that many ECE professionals happen to use data out of the necessity of the moment. This lack of intentionality is a cause for, and at the same time translates into missed training opportunities. Another interviewee pointed out issues related to the professionalism of the ECE workforce by remarking the inadequacy of ECE students' training in working with data. In conclusion, Núñez's model helped understand the different elements that affect ECE professionals' experiences with quantitative data. In particular, what was clear is that these professionals are not being provided with the necessary support and that we are not being intentional in creating data literacy skills for them, despite what is asked of them and their work.

Keywords : data literacy, early childhood professionals, intersectionality, quantitative data

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