



Intersectionality in Educational Psychology and Curriculum Studies: A Critical Review

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ABSTRACT

The review article draws on key literature on intersectionality: theory, methodology, and empirical applications in Educational Psychology and Curriculum Studies. The review points out the urgent need to account for diverse learners' intersectional identities (racial/ethnic backgrounds, gender, linguistic ability, citizenship status, and other social identity markers) and embrace a social-justice-oriented praxis in education. We argue that integrating the intersectionality framework with existing learning theories, methods (quantitative, qualitative, and mixed), and pedagogies is possible and necessary. Based on the critical review, we propose four recommendations for researchers and practitioners in Educational Psychology and Curriculum Studies: (a) staying faithful to the activism and liberatory commitment of intersectionality, (b) adopting appropriate method(s) and methodology with sound epistemological and axiological orientations, (c) reconceptualizing extant learning theories, which entails the re-thinking and validation of some education and psychological constructs, and (d) encouraging teaching and research on intersectionality and/or from an intersectional lens. The review article can serve as a guideline to incorporate intersectionality as theory and analytical framework. It is only through these practices that center intersectionality that we, as researchers and practitioners, become capable of creating a more equitable and inclusive learning environment from K-12 to Higher Education.

Keywords: Intersectionality, Educational Psychology, Curriculum and Instruction

1 Introduction

Educational work such as practicing caring and teaching is inherently gendered, but gender alone is not sufficient to paint the full picture of inequities faced by other women educators of color, of LGBTQ+ and/or trans-identity, differently abled, speaking a non-dominant language as their first language, etc. (Robert *et al.*, 2023). Intersectionality and the education system collide and collude within the context of the global pandemic COVID-19, immigration and migration, systemic racism, and ongoing political turmoil, further shaping intersectional dynamics of oppression, as COVID-19 has caused intersectional *ruptures* to education work by exacerbating the pre-existing inequitable working conditions and reconstituting who teaches whom, what, how, and for what purposes (Robert *et al.*, 2023).

Educational Psychology as a field is marked by its silence on and a lack of engagement with the issue of race in contemporary schooling systems (López, 2022). The field was founded by E. L. Thorndike, a proponent of Eugenics, who believed that education should be guided by experiments and statistics and ignored much of the social purpose of schooling (López, 2022). Educational Psychology has a long history of funding and defunding certain social curriculum and research (López, 2022). With globalization and the 'browning of America' (Sundstrom, 2008), the learner population has grown increasingly diverse. Yet, are schools, teachers, and researchers well-prepared to adjust for their unique needs? Or are we still demanding learners to *cope with* and *adjust to* the learning environment without addressing any systemic issues? Racial and gender discrimination overlapped in areas of life other than the workplace (Crenshaw, 2015). Learner with multiple disadvantaged social identity markers will have to live through inequitable material reality and experiences at different locales across time: public schools, larger school districts and communities,



standardized testing sites - just to name a few. Yet, these burdens were *'almost completely absent from feminist and anti-racist advocacy'* (Crenshaw, 2015). Moving forward, Educational Psychology needs more nuanced understanding and description of learners with multi-racial/ethnic backgrounds and acknowledge the intersectional nature of learner identities (Kumar & DeCuir-Gunby, 2023). Without a critical understanding of the social construction of race and process of racialization, the complexity around intersectional identities of minoritized population will be misread as distinct and equivalent forms of oppression, resulting in a reductionist view of diversity, inclusion, and equity (Burke, 2023, p. 319).

The study of intersectionality is essential to curricular studies because it offers an intricate framework for comprehending the ways in which different social identities interact to shape students' experiences and academic achievements. The integration of intersectional perspectives in curriculum design presents a challenge to the 'one-size-fits-all' approach (Corno *et al.*, 2001; Kuo *et al.*, 2020). An intersectional approach allows for the development of educational content that recognizes and attends to the distinct socioemotional needs that stem from the diverse cultural backgrounds of students. Rooted this strategy is vital for fostering an inclusive and equitable learning environment and for enriching the educational experience. It requires reevaluating and discarding entrenched conceptions of knowledge, learning, and mathematics to move away from dominant deficit-oriented paradigms, which often reinforce the accumulation of power and privilege within a certain group (Louie *et al.*, 2021; Yeh, 2023).

There is no systematic literature review examining intersectionality as an analytical framework for development and validation of educational measurements, a major subfield in Educational Psychology. Even in the only extant systematic review on intersectionality and quantitative methods by Bauer *et al.*, (2021), it was explicit that the authors excluded studies relevant to measurement development and validation. In addition, there is no methodological paper on how learning theories and analytical approaches can be re-framed with the liberating and activist orientation of intersectionality in mind. Bearing the reality in mind, we address the following research questions in this critical review:

- (a) What is intersectionality?
- (b) What guidelines and recommendations can we offer to practitioners and researchers in Educational Psychology and Curriculum Studies to integrate intersectionality as a theory, methodology, and analytical sensibility based on the critical review?

2 Review Criteria

To address these two questions, we conducted literature review using keywords of 'intersectionality,' 'intersectional*,' 'Educational Psychology,' 'curriculum,' 'curriculum and instruction,' 'educational measurement,' and 'quantitative method' from five major databases: ERIC ProQuest, ProQuest Education Database, APA PsycArticles, APA PsychInfo, and Google Scholars. We interweaved arguments from literature on intersectionality and provided valuable evaluations and recommendations.

3 Intersectionality as Theory, Method, and Methodology & Genealogy

We intend to treat the definition and examples of intersectionality here as *'starting points for investigation rather than end points of analysis'* (Collins, 2015). Intersectionality refers to the phenomenon that the constituent social categories of one's identity (e.g., race, gender, class, sexuality, citizenship status, age, etc.) are interdependent and mutually constitutive (Collins, 2015; Crenshaw, 1989; 1991). Crenshaw (1989; 1991) invoked the metaphors of a traffic intersection and basement to illustrate Black women's disadvantaged position due to a full array of factors at play and how the judicial system had failed them as *'anomalies created by crosscurrents of racism and sexism'*. Bowleg (2008) identified three core characteristics of intersectionality: interdependence, multidimensionality, and mutually constitutive. In other words, intersectionality is concerned with mutually constitutive social categories and how the relationships among these categories shape the formation of subjectivity, social structures, and power dynamics.

Consider the following case as an example of how intersectional identities are tangled in power dynamics. Immigrant women of color suffering from domestic violence are more often failed by the social

justice system than white English-speaking women who possess U.S. citizenship, as many social welfare institutes only offer assistance in English and these immigrant women dread the possibility of deportation. Immigrant women of color experience interlocking oppressions of race/ethnicity, sex, nationality, and linguistic status. An intersectional approach involves the *matrix orientation* as opposed to the single-axis way of thinking (May, 2015, p. 23), which is oftentimes misconstrued and misused by practitioners (Nash, 2017). By analyzing and conceptualizing the educational issues through a *multi-axis* approach, intersectionality offers more comprehensive answers to questions on educational equity and justice (Grant & Zwiener, 2011). As within-group differences coexist with between-group power asymmetries, privileges and oppressions must be put into a *relational* perspective (May, 2015, p. 4). Moreover, these unequal material realities and social experiences vary across space and time (Collins, 2015).

The concept of intersectionality has its root in Black Feminism history long before its first appearance in *Demarginalizing the Intersection of Race and Sex* by Kimberle Crenshaw in 1989 and has a long and expansive genealogy (Nash, 2017; Phoenix, 2023). Black women and feminists have long realized the interlocking forms of power and oppression and emphasized on the complexity of power-inequality (Phoenix, 2023). From Sojourner Truth's '*Ain't I A Woman*' to the Combahee River Collective Statement: '*race, sex, and class are simultaneous factors of oppression*' (Collective, 1983) to Crenshaw's canonical publication on anti-discrimination law. Yet many scholars failed to decenter Crenshaw as the inaugural scholar and thus overlooked the long history of intersectionality as an approach to power and inequality in the Black Feminism tradition (Nash, 2017). What is worth mentioning is that Crenshaw's scholarship has changed overtime. In her collaborative article with Cho and McCall (2013), intersectionality is theorized as a *heuristic device* and recast with an emphasis on political and structural inequalities. Intersectionality is a way of thinking about differences, solidary sameness, and embedded power relations as well as how theories and practices in multiple subfields mutually construct one another.

Despite much contention around its origin, history, and relation to identity and identity politics of intersectionality, intersectionality has become a theory, method, practice, analytical framework, and paradigm across humanities, social sciences, and many other disciplines (Collins, 2015; Nash, 2017; Davis & Lutz, 2023). For instance, some scholars have proposed having intersectionality and equity as the guiding principles in practice and training of school-based mental health programs to address issues such as racializing ability and equitable and sustainable resource distribution (Edyburn *et al.*, 2023). Intersectionality has become a full-fledged academic discipline as *intersectionality studies* (Davis & Lutz, 2023). Intersectionality is a *traveling theory* as it has traversed outside of academia to areas such as public administration as well as political organization and social activism (Whitebread *et al.*, 2023; Davis & Lutz, 2023; Viveros-Vigoya, 2023) and has been used as a theoretical framework and problem-solving heuristics across the globe (e.g., La Barbera *et al.*, 2023; Phoenix, 2023; Shrestha *et al.*, 2023). In Europe, some scholars have questioned the primacy of race and racism in intersectional analyses and argued for the relevancy of categories such as ethnicity, religions, and national identity and belonging given the immigration pattern and widespread Islamophobia post-9/11 (Davis & Lutz, 2023). In Latin America, intersectionality has encountered criticism from a decolonial feminism perspective, and many believe that practices centering intersectionality should be geopolitically re-oriented (Viveros-Vigoya, 2023).

Numerous books and journal articles have been published on intersectionality as an analytical lens for both qualitative and quantitative methods (e.g., Bowleg, 2008; Cole, 2009; Else-Quest & Hyde, 2016a; 2016b; McCall, 2005). McCall (2005) conceptualized three types of intersectional analyses (*intra-categorical, inter-categorical, anti-categorical*) to model the complexity of experiences within and among intersectional social positions. Three challenges of incorporating intersectionality in both quantitative and qualitative studies are relevant to measurement, data analysis, and interpretation (Bowleg, 2008). Bowleg (2008) is quite pessimistic in her article where she states that '*it is virtually impossible, especially in quantitative research, to escape the additive assumption implicit in the questions used to measure intersectionality.*' The simplest yet still inherently additive approach is to give participants the 'check all that apply' option (Bowleg, 2008). For data analysis, Bowleg (2008) pointed out the dilemma of handling data that reflects intersectionality more implicitly than explicitly

and criticized that most analytic strategies are inherently additive. Researchers and practitioners inevitably need to ask these questions: *Should we explicitly ask about intersectionality? How do we deal with participants' responses to questions not framed within intersectionality?* The interpretation of data, quantitative and qualitative alike, should be grounded in the experiences of ordinary people and situated within socio-historical contexts (Bowleg, 2008).

According to Bauer *et al.*, (2021), the first *quantitative* paper on intersectionality was published in 2001 since the term was coined in 1989. More than 94% of the papers that satisfied their review criteria were published after 2010 with approximately 74% of the first authors residing in the United States. The intersection of race/ethnicity and sex/gender has been the primacy of these analyses (Bauer *et al.*, 2021). But has intersectionality been detached from its goal when the quantitative researchers claimed to have adopted this framework? Unfortunately, Bauer *et al.*, (2021) found that 26.9% of the articles failed to provide a sound definition of intersectionality, 32% failed to cite the foundational authors, and 17.5% failed to reflect on the inherited power structure and dynamics albeit stating intersectionality as the analytical framework. It is not hard to see that the researchers who are using intersectionality may not be living up to a holistic integration of the concept. As a theoretical framework commonly adopted by qualitative researchers (e.g., Escalante, 2020; Haynes *et al.*, 2020; Onnie Rogers *et al.*, 2022; Sparks *et al.*, 2023), it goes without saying that there are numerous challenges with the attempt to bring intersectionality into the conversation with quantitative methods.

4 Recommendations

Integrating intersectionality with existing theoretical frameworks and methods in Educational Psychology and Curriculum Studies is both necessary and possible for us to co-create a more equitable and inclusive learning environment for everyone. Under each subsection of Section 4, we provided novel theorization and empirical examples from the perspectives of staying faithful to the activist orientation of intersectionality, analytical approaches, re-theorizing learning and educational measurements, and teaching and researching with intersectionality and/or from an intersectional perspective.

4.1 Committing to the Liberating and Activism Orientation of Intersectionality

Intersectionality has been institutionalized in troubling ways: the invocation of the term is oftentimes performative as opposed to doing academic labor that is truly intersectional (Nash, 2017). Doing intersectional theorizing and analysis is inextricably linked with intersectional activism (Moradi *et al.*, 2020). Intersectionality is not only an academic project but also a site of praxis (Collins, 2019, p. 53). Advocacy for policies to remedy racial and gender discrimination demanding more economic justice for women of color (e.g., *Why We Cant Wait* and *'Say Her Name'* campaigns) can be examined and understood with the theoretical lens of intersectionality. As an *analytical sensibility*, intersectionality is called to examine how power structures have successfully resisted social changes for more than three decades since the term was first coined and to raise awareness of how racism, sexism, and other forms of inequalities work in conjunction to undermine youths of color (Crenshaw, 2015). Intersectionality should not be viewed as property of Black women but rather a political strategy taken up by women of color alliances and many others to fight for their visibility and inclusion (Crenshaw, 2015).

Educational Psychology and Curriculum Studies researchers and education practitioners should bear the social purpose of schooling in mind and adhere to *'a bottom-up commitment to improving the substantive conditions for those who are victimized by the interplay of numerous factors'* (Crenshaw, 1989). Researchers need to develop a sound understanding of participants' experiences of belonging to multiple social categories that are dynamic and fluid in nature; these social categories and intersectional experiences are deeply entangled with power structures and social inequities (Else-Quest & Hyde, 2016a). Salient characteristics of one's identity are context-driven and individuals experience different prominence of aspect(s) of their identities across different locales and time (Whitebread *et al.*, 2023).

Educational researchers should avoid further marginalizing the already marginalized and low-frequency groups. Else-Quest & Hyde (2016b) have warned against the lumping error due to sampling failure that fail to divide up the minority groups into subgroups (e.g., homogenizing an ‘Asian’ group that is heterogeneous in nature: Chinese Americans, Japanese nationals, Vietnamese refugees, etc.). The typical practice of comparing intervention treatment effect on the white + Asian group against African Americans, Latinx, and Native (ANH) group is an example of such lumping error, which fails to account for the within-group heterogeneity and subcultural variations and ultimately fail to fulfill the liberating ends of intersectional research. As a remedy, sampling schemes such as stratified random sampling and purposive sampling can reduce the need to uncritically lump participant groups together.

Staying faithful to intersectionality as a methodology also entails the rejection of the *additive* approach. Inequity due to social identities such as race/ethnicity, sex, gender, and sexual orientation are intersectional rather than additive in nature (Bowleg, 2008; Hancock, 2007). To reject the additive approach is to reject the idea that one’s identities and the inequities associated with those identities can be isolated and ranked (Bowleg, 2008). For example, survey questions that ask participants to rank the importance of race, sex, sexual orientation, linguistic status to their perceived discrimination and microaggression are additive rather than intersectional because these questions imply that disadvantaged positions can be separated and ranked. A question that truly measures intersectionality would ask participants about their experiences without attempting to separate their identities and let them discuss these experiences however best resonate with their identities (Bowleg, 2008). Hence, we recommend researchers give participants the opportunities to add information on their intersecting social identity markers that could have been otherwise overlooked by researchers.

Bowleg (2008) argues that the three core characteristics of intersectionality are contradictory to many positivist assumptions inherent to quantitative methods. For instance, the assumptions of predictor independence and linearity in regression analysis and uni-dimensionality in measurements are often not warranted. The seemingly objective quantitative construction of learning phenomena is not theoretically neutral or value-free. Intersectionality under these circumstances is a critical theory and analytical approach to examine power relationships and empower individuals to transcend the social constraints (Else-Quest & Hyde, 2016a). Quantitative, qualitative, and mixed methods that claim to be ‘intersectional’ are ultimately insufficient if the results are not interpreted concerning power dynamics and structural inequality. We must wake up from the ‘institutional amnesia’ where we pretend the term to be a purely intellectual innovation (Collins & Bilge, 2020; Nash, 2017) and preserve the integrity of intersectional inquiry by abandoning inauthentic intersectionality and committing to dismantling structural oppressions (Tripp, 2023).

4.2 Adopting Sound Analytical Method(s) and Methodology

In this section, we offer a review of novel analytic strategies and modeling techniques that incorporate an intersectional perspective and help us understand the complexity and nuances around intersectionality. In terms of data, both individual-level data and data on the interactions of individual, household, and neighborhoods should be collected (Bauer, 2021; Bowleg, 2008; Scott & Siltanen, 2017). While within-group design is valuable for providing information about a specific locale, it may contribute to the error of overgeneralization with other groups neglected (Else-Quest & Hyde, 2016b). Multilevel modeling and structural equation modeling (SEM) with special attention paid to the structure of analysis and directional pathway are recommended modeling approaches for quantitative intersectional research (Else-Quest & Hyde, 2016b). The compatibility of latent class analysis (LCA) with intersectionality is also brought up in recent literature, as this method allows for the emergence of clusters based on social identity markers (Spierings, 2023, p. 241-242).

Interactions are not add-on effects and are useful for identifying multiplicative effects above and beyond the additive effects (Else-Quest & Hyde, 2016a). The inclusion and interpretation of statistical interactions can help researchers and practitioners understand how an intervention effect can be mediated by race and gender. Bowleg (2008) made the statement that *‘in an ANOVA, for example, interactions are*

contingent on the size of the main effect.' We would like to argue that it is more a problem of statistical *power* instead of statistical *significance*. A much larger sample size is needed when testing for interactions, but it has no influence on the magnitude of the interaction coefficients estimated. The interaction term can still be significant despite the main effects being insignificant. The main critique should still be centered around the fact that (a) the estimation of interaction requires selecting a focal variable and (b) multiple social identities jointly shape learners' experiences. One caveat is that no difference or significant interaction does not mean that there are no inherent power relations associated with intersecting identities.

The three central characteristics identified by Scott & Siltanen (2017) are the importance of context, heuristic orientation to different relevant dimensionality of inequality, and the complexity of multiple dimensional structures of inequality. As researchers and practitioners, there is a need to reject the one-size-fits-all mentality and embrace a *context-bound* analytical strategy. Literature and prior research inform us of the relevance of a particular social category to reconfigure social inequality. Multilevel regression with context as a higher-order level of analysis is deemed as the technique more compatible with an intersectional feminist understanding than both regressions with context as a higher-order interaction and multiple regressions within different contexts (Scott & Siltanen, 2017). Scott and Siltanen (2017) investigated a case of a magnified significant negative effect of the relationship between neighborhood-level low income and unpaid housework time above and over the negative relationship between individual-level low income and the same response variable, indicating a '*contextual economic advantage*.' The significant cross-level interaction indicates that the gender inequality in terms of unpaid housework is significantly less in the low-income neighborhood than that in wealthier ones. Contextual factors and individual-level relationships interact and mutually constitute each other through cross-level interactions. The interpretation of intersectionality is inevitably bound by the statistical properties of the model and we need to consider variations at the level of the individual- as well as context-level.

Methodologists and analysts alike should remain open-minded to advanced statistical methods. The *multilevel analysis of individual heterogeneity and discriminatory accuracy (MAIHDA)* was proposed by Merlo (2018) specifically under the theoretical framework of intersectionality to study individual health disparities in relation to socioeconomic status, ethnicity, and gender. Compared with the MAIHDA method, multivariate linear models and conventional multilevel models tend to provide biased estimates for intersections when the sample size is small (Gross & Goldan, 2023). The MAIHDA approach does not require modeling any interaction terms as their impact can be determined with proportional change in between-strata variance (PCV) value (Gross & Goldan, 2023). Despite its potency, the MAIHDA approach is rarely adopted in quantitative research (Bauer *et al.*, 2021; Gross & Goldan, 2023) and oftentimes subject to methodological discussions (Gross & Goldan, 2023).

Dependent data modeling can also be reframed under intersectionality. Network modeling is such an example as it captures the interconnectedness among learner observations and how the relationships evolve over time. Semiparametric temporal exponential-family random graph models (Lee *et al.*, 2022), for example, can guide researchers gauge how the density, stability, reciprocity, and transitivity parameters of a learner network change overtime and provide clustering profile solutions for learners of diverse intersectional backgrounds. More importantly, the probability estimation of the above network model allows a learner to belong to multiple social groups as it returns the probabilities of all possible group memberships.

Concerning Artificial Intelligence (AI) and Machine Learning (ML), AI has been reproducing and amplifying the popular narratives around underserving-ness (Knowles *et al.*, 2023). We need to go beyond collecting 'representative' training-testing data samples. These so-called 'representative' samples could already reflect systematic oppressions imposed on individuals with intersectional disadvantaged social positions and fail to challenge the inequitable structural forces and power relations. Knowles and colleagues (2023) named multiple marginalized groups' distrust of AI as '*intersectional logics of resistance*' as unique harm caused by AI is compounded with existing structural inequities to create *digital underclass*, for whom the risk of trusting AI far outweighs the rewards of doing so.

Else-Quest and Hyde (2016b) proposed guidelines for quantitative methods to incorporate intersectionality calling attention to theory, design, sampling schemes, measurement, data analytics strategies, and interpretation and framing. All the new techniques invite education practitioners and researchers to think about different ways to specify group memberships and variables and can be used along with regression models (Spierings, 2023, p. 241). Moving towards a critical quantitative intersectionality (e.g., Jang, 2023; Núñez *et al.*, 2023; Whitebread *et al.*, 2023), educators should make explicit and make sense of participants' intersectional identities, being mindful of their own epistemological stances, and adopting a contextualized method by incorporating sociocultural structures of inequality based on those intersecting identities.

4.3 Reconceptualization of Extant Learning Theories and Constructs

As intersectionality has traveled into discourses, which constitute the knowledge production processes that are far from transparent (Cho *et al.*, 2013), it is time to abandon the illusion of political neutrality in knowledge production and in the use of learning theories. We would like to invite Educational Psychology and Curriculum Studies colleagues to reflect on what learning theories are compatible with the theoretical framework of intersectionality. We argue that numerous learning theories can be reconceptualized under this theoretical framework. For instance, Wint *et al.*, (2022) integrated intersectionality into *Life Course Theory* to identify risk factors and supports at multiple levels at various developmental stages of Black boys and adolescents calling for a change in the deficit narratives and highlighting learners' strengths and resistance.

Next presented is an example of how we can reconceptualize the Bioecological Model (Bronfenbrenner & Morris, 2007), a development model of change and continuity of individual learner and groups, under the theoretical framework of intersectionality. On a spatial level, the Bioecological Model captures intersectionality at *micro-* (e.g., family, peers, school, church, neighborhood, etc.), *meso-* (e.g., how microsystems interact with one another), *exo-* (e.g., mass media, friends of the family, social welfare services, etc.), and *macro-structures* (e.g., attitudes and ideology of the culture) (Bronfenbrenner & Morris, 2007). Furthermore, learning environments occur over time within certain socio-historical contexts (Bronfenbrenner & Morris, 2007). These systems can interact with one another to create multiple disadvantages for a person at a particular intersection. Consider an immigrant woman with disabilities who is also the first person in a family to attend college: her choice of high school and college will inevitably be influenced by her family socioeconomic status and beliefs in schooling, which are influenced by the neighborhood, church the family attend (if any), available school options, and the interactions of all these factors. Lastly, the outer shell of macro-structures such as the culture of the time will dictate, to a certain degree, what happens at the micro-, meso-, and exo-levels.

Núñez (2014) theorized a multilevel intersectional model for Latinx students and college access. The author proposed a three-layer of analysis: intersecting social categories such as race, gender, immigration status, etc. represent the first layer, situated in the second layer of representational, experiential, intersubjective, and organizational arenas of practice (Núñez, 2014). Both the first and second layers are situated within the last layer that represents the sociohistorical context in which social categories, their relations, and practices are constructed within (Núñez, 2014). Bešić (2020) explored a similar idea using the *onion metaphor* to illustrate the difficulty of recognizing where one identity marker begins and where the other ends as well as that individuals can simultaneously belong to multiple groups under the unified system of oppression such as racism, sexism, ageism, religious oppression, and ableism.

Intersectionality, as an analytical lens, has been adopted to theorize around identity and other educational constructs for Asian Americans and Pacific Islanders (AAPI) communities. It could explain why Asian Americans are often portrayed as feminine, as historically Asian men were forced into occupations that were stereotypically women's work after the completion of the transcontinental railroad (Lei *et al.*, 2023) and how gendered stereotypes are invoked to maintain the racist status quo (Goh *et al.*, 2023). In addition, being portrayed as hyper-feminine subjects East Asian women lead to tremendous

disadvantage in contexts that emphasize masculinity and contests (Goh *et al.*, 2023). Intersectionality has been employed to examine AAPI students' sense of belonging: South Asian ninth graders had higher sense of belonging compared to other AAPI ethnic groups across all socioeconomic backgrounds while gender and East Asian origins intersected and produced a much more nuanced pattern (Jang, 2023).

Latinx students also use intersectionality of their race/ethnicity, gender, and culture to develop agency and persist in their STEM majors and career trajectory (Sparks *et al.*, 2023). Huber (2023) interviewed undocumented Latinx students and revealed how racist nativism manifested in their daily lives (e.g., construction of undocumented immigrant students as threats to white 'native' teachers' well-being), considering the intersectional aspects of their identity such as race, gender, immigration status, and language. The experiences often left Latinx students feeling isolated in their educational journey and limited their access to resources campus-wise and in the society (Huber, 2023).

Embracing the theoretical framework of intersectionality requires us to reconsider how certain social identity and learning constructs are conceptualized and operationalized. This reconsideration entails consideration of identity constructs that challenge the uni-dimensional assumption and constructing measurement instruments to develop critical intersectionality consciousness. Many education assessment measures are constructed based on culturally narrow samples, oftentimes predominantly white middle-class college students (Matthews & López, 2020). This is another issue we would like to tackle with intersectionality.

The multi-dimensionality of constructs such as race, gender, sexual orientation, etc. often goes unacknowledged in educational research. Gender as a social construction, for example, should not be measured as a stable binary male-female one (Gross & Goldan, 2023; Kosciuszka, 2023), as we often see in social surveys and questionnaires. Failing to account for the experiences of non-binary, intersex, or transgender learners result in an incomplete description and understanding of these individuals (Kosciuszka, 2023). Similarly, sexual orientation should be constructed as a continuous variable due to its fluid nature and intersectionality has much potential as queer epistemology (Schey, 2023). Diamond *et al.*, (2020) theorized four distinct types of sexual fluidity (e.g., fluidity in response to gender partnering and as instability to day-to-day attraction) and concluded that sexual fluidity is not a uni-dimensional individual difference dimension. In terms of race, its multidimensionality might include racial/ethnic status on legal terms, ethnic ancestry, country of birth, citizenship status, skin shade, and others' perception (Bauer *et al.*, 2021). In addition, by incorporating the lens of intersectionality, we can rethink the implication of being bi-racial (e.g., one identified as both Latino and Black) and multiracial within the one category of race (Quest & Hyde, 2016b). Uncritical adoption of the unidimensional assumption will inevitably provide poor validity evidence of the aforementioned social constructs. Lastly, a learner's identification with social categories (especially ethnicity, gender, and sexual orientation) can change over time. Timely collection of information on one's self-identification with social groups is needed as *'there is no single reality about the experiences about one's intersecting identities, only multiple constructed realities about one's own experience of intersectionality'* (Bowleg, 2008).

Moreover, we should never rely on demographic indicators alone as explanatory constructs (Bowleg, 2008). Rather, some of the more meaningful constructs are the *intersectional experiences* of perceived discrimination and microaggressions (micro-invalidations, assumptions of inferiority, microaggressions that happen at school and workplace; see Proctor *et al.*, (2018)), access to the traditional and digital health care (e.g., Figueroa *et al.*, 2021), minority and stigma-related stress (e.g., Jackson *et al.*, 2020; Williams *et al.*, 2020), resilience, and many more. Take Jackson *et al.* (2020) as an example: multiple axes of oppression can interdependently shape the Black LGBTQ+ population's daily experiences and psychological health. Negative intersectional experiences were reported to be associated with identity conflict and negative affect at both within- and between-person level (Jackson *et al.*, 2020).

There is a burgeoning body of empirical research on motivation theories from an intersectional perspective with a diverse student population and subject disciplines in recent years (e.g., Burns *et al.*, 2023; Hsieh *et al.*, 2021; French *et al.*, 2023). Many have censured the whiteness of motivation research and the untenable presumption that motivational processes are universal or culturally invariant (Burns *et al.*, 2023;

Usher, 2018). Hsieh *et al.*, (2021) integrated intersectionality with situated expectancy-value theory (Eccles & Wigfield, 2020) to examine if the patterns of mathematical motivation beliefs vary across population of different race/ethnicity and gender. The intersectional approach is the only way to identify the most vulnerable groups in terms of race/ethnicity and gender and examine whether the developmental processes of learners' motivational patterns are similar within each group (Hsieh *et al.*, 2021). Parker *et al.*, (2020) conducted a meta-analysis to examine how factors such as socioeconomic status, ethnic diversity, and country-level indicators moderate the relationship between gender and expected-value theory constructs across STEM sub-disciplines.

We would like to call for the development, validation, and replication of measures that facilitate intersectionality consciousness (e.g., measurements to evaluate teachers' and students' understanding of intersectionality). For example, *Intersectionality Conscious Collaboration Protocol* was introduced to Physics educators to raise awareness and improve pedagogical practice to make the field more inclusive to women, LGBTQ+, and racial/ethnic minority students (Boveda & Weinberg, 2020). Another example is the *Intersectional Competence Measure (ICM)* in mathematical and physical sciences (Boveda, 2019). Just as enrollment in ethnic studies in K-12 schools is found to have increased attendance, high school graduation, and college enrollment (Bonilla, 2021), further investigations are needed to study the association between one's intersectionality consciousness and educational attainment and persistence.

4.4 Teaching and Research on Intersectionality and/or From an Intersectional Lens

As children are keenly aware of negative stereotypes from a very young age. Children are not colorblind: they develop racial biases by age three to five (Winkler, 2009). Using easily understandable words and concepts can help children '*recognize differences between people while celebrating similarities*' (Mott Young, 2021). Goh *et al.* (2023) theorized that children could learn about the world in an *intersectional* way instead of thinking about one category of identity at a time. For example, children may pick Asian women as the most typical representation of women whereas Black women as the least representative (Goh *et al.*, 2023).

It is crucial to challenge ingrained notions of gender and ethnicity and to steer clear of preconceptions while educating young children. Instead of forcing kids to fit themselves into prefabricated boxes with labels and set looks, this approach lets them start creating their own boxes with unique definitions and attributes. According to Kurian (2023) there are three essential care methods that include anchoring and building, diffusing and calming, and affirming and attuning. Creating a shared classroom identity, valuing and honoring children's intersectional identities, and using culturally sensitive storytelling to resolve disputes are some of these tactics (Kurian, 2023). The objective is to create an inclusive environment where the children's experiences, languages, and cultural backgrounds are valued and taken into consideration. Concurrently, acknowledging kids' and educators' diverse ethnic backgrounds aids in kids' self-discovery (Knox-Lane *et al.*, 2023). Recognizing the racial heritage of kids and instructors helps to create a brighter future for kids since gender, race, and ethnicity are interwoven and important throughout the developmental stage.

Parents play an irreplaceable role. Seider *et al.*, (2023) frame the process of parents sharing cultural assets in multiethnic-racial families as a multi-faceted and reflective practice. They highlight the critical importance of co-parents actively learning about each other's cultures and being reflective about their cultural practices and values. This is seen as essential for effectively sharing cultural heritage with children. The authors underscore the need for both parents, particularly in heterosexual families, to take an active role in cultural socialization, moving beyond traditional roles and embracing a shared responsibility. Seider *et al.*, (2023) noted the significance of parents investing time and effort in understanding and respecting each other's cultural backgrounds, which is pivotal in facilitating a rich and diverse cultural environment for their children.

In Curriculum Studies, *DisCrit Classroom Ecology* (Annamma & Morrison, 2018; Hancock *et al.*, 2021) was proposed and framed as a practice to enrich the field of Early Childhood Education through personal preparation programs to counteract racism and ableism and to serve children of color and their families at

multiple marginalized social positions from the center (Annamma & Winn, 2019). The DisCrit Classroom Ecology has four components: DisCrit Resistance, curriculum, pedagogy, and Solidarity. Early childhood educators are called to address barriers to awareness and staying. In addition, they are encouraged to infuse their curricula with opportunities for children to explore their multifaceted identities and create a sense of belonging and pride (Lalvani & Bacon, 2019). In the pursuit of supporting and fostering the academic and professional growth of marginalized teachers and students of color, operating within the DisCrit noticing framework, it is imperative for teacher educators and researchers to conscientiously engage in a process of heightened awareness. This awareness entails a commitment to reevaluating and discarding established notions of knowledge, learning, and mathematics to disengage from prevailing deficit-oriented paradigms that often perpetuate the consolidation of power and privilege within a select group (Louie *et al.*, 2021; Yeh, 2023). In the same vein, Leyva and Joseph (2023) conducted a scoping review to promote linguistic justice interrogating the interlocking systems of oppression and the resulting language-related inequities in math education.

The school curriculum is not a value-neutral repository of information but rather a conduit through which children receive explicit and implicit messages about the relative importance of different bodies of knowledge, shaping their social perceptions (Wee *et al.*, 2023). In an illustrative case, Liz, a first-grade student in a public elementary school that is mentioned, encountered the story of Ruby Bridges in her online learning environment. Liz self-identifies as a racially ambiguous individual, drawing attention to the societal interchangeability of race and color terms, where skin color-based racial categorizations such as White, Black, and Brown have generated ongoing debate (Harpalani, 2015; Wee *et al.*, 2023). Consequently, it falls upon adults, including educators and parents, to cultivate an environment that facilitates children's exploration and understanding of their own racial, gender, and sexual identities.

Intersectionality in Teacher Education challenges the dominant conceptualization of legitimate knowledge and who can be knowers. Understanding of intersectional identity and positionality could also be leveraged in praxis-oriented teacher training in science and environmental education to develop a more nuanced understanding of culture-nature and co-existence of multiple epistemologies (Burke, 2023, p. 320; Scipio, 2023). Take Lee-Johnson (2023) as an example: immigrant mothers of color used their intersectional identities as agentive tools to negotiate their legitimacy teaching English and resisted racial reductionism in public schools. In addition, teachers are uniquely positioned to engage in the learning process as *designers*. Teachers could organize and adapt resources (e.g., learning tasks, classroom physical structures) to center students' intersectional identities and meet their unique needs (Warr & Wakefield, 2023). In the design process, teachers are constantly learning to address *their* students' needs in *their* classrooms, where knowledge is fluid and adaptable, figuratively complex, and particular to the students (Warr & Wakefield, 2023).

A one-size-fits-all educational strategy fails to address the demands of various children with respect to their color, ethnicity, and socioeconomic backgrounds even with a large and diverse sample (Corno *et al.*, 2001; Kuo *et al.*, 2020). Kuo *et al.*, (2020) reflected and commented on the need to reject a one-size-fits-all socioemotional learning model by considering various cultural diversity factors when designing such curricula. Enciso (2014) discusses the concept of 'policy prolepsis.' Prolepsis activity goes beyond mere historical re-writing. Prolepsis can assist in the collaborative construction of alternative futures, moving activity toward liberatory ideals (Enciso, 2014; Gutiérrez *et al.*, 2020; Machado *et al.*, 2023). The term 'prolepsis' refers to the forward-thinking and anticipatory approach to literacy teaching. It teaches ethnicity by giving teachers the ability to anticipate and include these topics in the curriculum, and give children more space to define their race, gender, and sexuality.

Porter, Boss, and Davis (2023) framed the stories three faculty in the US higher education system within an intersectional analysis: the narrators shared intersectional identities of being Black women and holding different academic appointments on top of other aspects of their identities (e.g., socioeconomic status, marital status, sexuality, and ability), highlighting an increasing load of care-taking responsibilities both at home and teaching and service responsibilities at universities since COVID-19 and the power

inequities at interpersonal, disciplinary, and structural levels. Kucirkova (2023) called for alternative ways to think about academic successes with intersectional disparity and equity in mind: to measure success not only at the individual level and to re-orient discussions of acceptable workload and well-being in academia. Women scholars from countries that historically silence women or embrace a less egalitarian attitude tend to face greater social pressures and more difficulty navigating 'hidden curriculum' in academia (Kucirkova, 2023).

Educational researchers and practitioners should familiarize themselves with the literature available at hand by reading both intensively and extensively the extant literature on intersectionality and methodology. Nash (2017) invoked three monographs and commented that critics of intersectionality, real and imagined, failed to read the foundational texts correctly and proceed with their perceived 'correct' interpretation of the text. Furthermore, researchers who want to conduct intersectional quantitative research need to situate their work within the theoretical framework, properly define and explain the theory of intersectionality, and reflect upon the implication of the interlocking oppressing effects of social categories.

5 Conclusion

In the manuscript, we reviewed key literature on the genealogy of intersectionality and intersectionality as a theory, method/methodology, and its empirical applications in Educational Psychology and Curriculum Studies. We explicated how this integrative framework can and should be applied to these educational fields to fulfill the social purpose of schooling by (a) staying faithful to the activist orientation of intersectionality, (b) reconceptualizing learning theories and educational measurements, (c) adopting appropriate modeling strategies and techniques, and (d) encouraging the teaching, research, and dissemination of intersectionality. Intersectionality helps us identify how multiple forms of marginalization and discrimination occur at both the individual and structural level. With the framework of intersectionality, we demand justice for marginalized individuals who have been rendered invisible and underserved by the K-12 and higher education systems due to their intersectional identities. We envision a more just and inclusive K-12 and higher education system for everyone. With the potential of intersectionality, we dare to dream, imagine, and make a more just educational environment for everyone. Quoting Dr. Bettina Love: we are here not to be allies but *co-conspirators*.

6 Declarations

6.1 Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- Annamma, S., & Morrison, D. (2018). DisCrit classroom ecology: Using praxis to dismantle dysfunctional education ecologies. *Teaching and Teacher Education*, 73, 70-80. <https://doi.org/10.1016/j.tate.2018.03.008>
- Annamma, S. A., & Winn, M. (2019). Transforming our mission: Animating teacher education through intersectional justice. *Theory Into Practice*, 58(4), 318-327. <https://doi.org/10.1080/00405841.2019.1626618>
- Bauer, G. R., Churchill, S. M., Mahendran, M., Walwyn, C., Lizotte, D., & Villa-Rueda, A. A. (2021). Intersectionality in quantitative research: A systematic review of its emergence and applications of theory and methods. *SSM-population health*, 14, 100798. <https://doi.org/10.1016/j.ssmph.2021.100798>
- Bešić, E. (2020). Intersectionality: A pathway towards inclusive education?. *Prospects*, 49(3), 111-122. <https://doi.org/10.1007/s11125-020-09461-6>
- Bonilla, S., Dee, T. S., & Penner, E. K. (2021). Ethnic studies increases longer-run academic engagement and attainment. *Proceedings of the National Academy of Sciences*, 118(37). <https://doi.org/10.1073/pnas.2026386118>
- Boveda, M. (2019). Developing Intersectional Competence in the Mathematical and Physical Sciences. *Bulletin of the American Physical Society*. <https://www.aps.org/meetings/upload/Keynote-4-Boveda.pdf>
- Boveda, M., & Weinberg, A. E. (2020). Facilitating intersectionally conscious collaborations in physics education. *The Physics Teacher*, 58(7), 480-483. <https://doi.org/10.1119/10.0002066>
- Bowleg, L. (2008). When Black+lesbian+woman ≠ Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex roles*, 59(5), 312-325. <https://doi.org/10.1007/s11199-008-9400-z>
- Bronfenbrenner, U., & Morris, P. A. (2007). The bioecological model of human development. *Handbook of child psychology*, 1. <https://doi.org/10.1002/9780470147658.chpsy0114>
- Burke, L. E. C. A. (2023). Science Teacher Education in Canada: Addressing Diversity by Living and Teaching Intersectionality. In *To Be a Minority Teacher in a Foreign Culture: Empirical Evidence from an International Perspective* (pp. 317-331). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-25584-7_20
- Burns, E. C., Lowe, K., Leonard, A., & Tsiamis, J. (2023). Australian aboriginal and Torres Strait Islander students' motivation to continue in senior science: An expectancy value theory and intersectional identity approach. *Contemporary Educational Psychology*, 72, 102125. <https://doi.org/10.1016/j.cedpsych.2022.102125>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of women in culture and society*, 38(4), 785-810. <https://doi.org/10.1086/669608>
- Cole, E. R. (2009). Intersectionality and research in psychology. *American psychologist*, 64(3), 170. <https://doi.org/10.1037/a0014564>
- Collective, C. R. (1983). The Combahee river collective statement. *Home girls: A Black feminist anthology*, 1, 264-274. <http://circuitous.org/scraps/combahee.html>
- Collins, P. H. (2015). Intersectionality's definitional dilemmas. *Annual review of sociology*, 41, 1-20. <https://doi.org/10.1146/annurev-soc-073014-112142>
- Collins, P. H. (2019). *Intersectionality as critical social theory*. Duke University Press. <https://doi.org/10.2307/j.ctv11hpkdj>
- Collins, P. H., & Bilge, S. (2020). *Intersectionality*. John Wiley & Sons.
- Como, L., Cronbach, L. J., Kupermintz, H., Lohman, D. F., Mandinach, E. B., Porteus, A. W., & Talbert, J. E. (2001). *Remaking the Concept of Aptitude*. <https://doi.org/10.4324/9781410604521>
- Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. *University of Chicago Legal Forum*, 1, 139-168. <https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8/>
- Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*, 43(6), 1241-1299. <https://doi.org/10.2307/1229039>
- Crenshaw, K. (2015). Why intersectionality can't wait. *The Washington Post*, 24(09), 2015.
- Davis, K., & Lutz, H. (2023). Intersectionality as Travelling Theory—Possibilities for Dialogues. In *The Routledge International Handbook of Intersectionality Studies* (pp. 3-13). Routledge.
- Diamond, L. M., Alley, J., Dickenson, J., & Blair, K. L. (2020). Who counts as sexually fluid? Comparing four different types of sexual fluidity in women. *Archives of Sexual Behavior*, 49(7), 2389-2403. <https://doi.org/10.1007/s10508-019-01565-1>
- Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology*, 61, 101859. <https://doi.org/10.1016/j.cedpsych.2020.101859>
- Edyburn, K. L., Bertone, A., Raines, T. C., Hinton, T., Twyford, J., & Dowdy, E. (2023). Integrating intersectionality, social determinants of health, and healing: A new training framework for school-based mental health. *School Psychology Review*, 52(5), 563-585. <https://doi.org/10.1080/2372966X.2021.2024767>
- Else-Quest, N. M., & Hyde, J. S. (2016a). Intersectionality in quantitative psychological research: I. Theoretical and epistemological issues. *Psychology of Women Quarterly*, 40(2), 155-170. <https://doi.org/10.1177/0361684316629797>
- Else-Quest, N. M., & Hyde, J. S. (2016b). Intersectionality in quantitative psychological research: II. Methods and techniques. *Psychology of Women Quarterly*, 40(3), 319-336. <https://doi.org/10.1177/0361684316647953>
- Enciso, P. (2014). Prolepsis and educational change through drama: Bringing the future forward. In S. Davis, B. Ferholt, H. Grainger Clemson, S.-M. Jansson, & A. Marjanovic-Shane (Eds.), *Dramatic interactions in Education: Vygotskian and sociocultural approaches to drama, education and research* (pp. 171-188). Bloomsbury. <https://doi.org/10.5040/9781472593429.ch-009>
- Escalante, S. (2020). Exploring access, intersectionality, and privilege in undergraduate music education courses. *Journal of Music Teacher Education*, 29(2), 22-37. <https://doi.org/10.1177/1057083719873981>
- Figueroa, C. A., Luo, T., Aguilera, A., & Lyles, C. R. (2021). The need for feminist intersectionality in digital health. *The Lancet Digital Health*, 3(8), e526-e533. [https://doi.org/10.1016/S2589-7500\(21\)00118-7](https://doi.org/10.1016/S2589-7500(21)00118-7)

- French, A. M., Else-Quest, N. M., Asher, M., Thoman, D. B., Smith, J. L., Hyde, J. S., & Harackiewicz, J. M. (2023). An Intersectional Application of Expectancy-Value Theory in an Undergraduate Chemistry Course. *Psychology of Women Quarterly*, 03616843231153390. <https://doi.org/10.1177/03616843231153390>
- Goh, J. X., Lei, R. F., & Zou, L. X. (2023). Positioning Asian Americans in social cognition. *Social and Personality Psychology Compass*, e12760. <https://doi.org/10.1111/spc3.12760>
- Grant, C. A., & Zwier, E. (2011). Intersectionality and student outcomes: Sharpening the struggle against racism, sexism, classism, ableism, heterosexism, nationalism, and linguistic, religious, and geographical discrimination in teaching and learning. *Multicultural perspectives*, 13(4), 181-188. <https://doi.org/10.1080/15210960.2011.616813>
- Gross, C., & Goldan, L. (2023). Modelling Intersectionality within Quantitative Research. *sozialpolitik*. ch, (1/2023), 1-3. <https://doi.org/10.18753/2297-8224-4025>
- Gutiérrez, K. D., Susan Jurow, A., & Vakil, S. (2020). Social Design-based experiments. *Handbook of the Cultural Foundations of Learning*, 330–347. <https://doi.org/10.4324/9780203774977-23>
- Hancock, A. M. (2007). When multiplication doesn't equal quick addition: Examining intersectionality as a research paradigm. *Perspectives on politics*, 5(1), 63-79. <https://doi.org/10.1017/S1537592707070065>
- Hancock, C. L., Morgan, C. W., & Holly Jr, J. (2021). Counteracting dysconscious racism and ableism through fieldwork: Applying DisCrit classroom ecology in early childhood personnel preparation. *Topics in Early Childhood Special Education*, 41(1), 45-56. <https://doi.org/10.1177/0271121421989797>
- Haynes, C., Joseph, N. M., Patton, L. D., Stewart, S., & Allen, E. L. (2020). Toward an understanding of intersectionality methodology: A 30-year literature synthesis of Black women's experiences in higher education. *Review of Educational Research*, 90(6), 751-787. <https://doi.org/10.3102/0034654320946822>
- Harpalani, V. 2015. "To Be White, Black, or Brown: South Asian Americans and the Race-Color Distinction." *Washington University Global Studies Literature Review*, 14, 609.
- Hsieh, T. Y., Simpkins, S. D., & Eccles, J. S. (2021). Gender by racial/ethnic intersectionality in the patterns of Adolescents' math motivation and their math achievement and engagement. *Contemporary Educational Psychology*, 66, 101974. <https://doi.org/10.1016/j.cedpsych.2021.101974>
- Huber, L. P. (2023). Using Latina/o critical race theory (LatCrit) and racist nativism to explore intersectionality in the educational experiences of undocumented Chicana college students. *Educational Foundations*. <https://files.eric.ed.gov/fulltext/EJ885982.pdf>
- Jackson, S. D., Mohr, J. J., Sarno, E. L., Kindahl, A. M., & Jones, I. L. (2020). Intersectional experiences, stigma-related stress, and psychological health among Black LGBTQ individuals. *Journal of Consulting and Clinical Psychology*, 88(5), 416. <https://doi.org/10.1037/ccp0000489>
- Jang, S. T. (2023). Sense of School Belonging Among Asian American and Pacific Islander Students in US High Schools: A Critical Quantitative Intersectionality Analysis. *Teachers College Record*, 125(3), 289-318. <https://doi.org/10.1177/01614681231173019>
- Knowles, B., Fledderjohann, J., Richards, J. T., & Varshney, K. R. (2023, June). Trustworthy AI and the Logics of Intersectional Resistance. In *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency* (pp. 172-182). <https://doi.org/10.1145/3593013.3593986>
- Knox-Lane, T., Bailey, C.-S., Ponnock, A., & Denham, S.-A. (2023). Teacher-child racial congruence and young children's preschool adjustment. *Early Childhood Research Quarterly*, 63, 249–263. <https://doi.org/10.1016/j.ecresq.2022.12.013>
- Koscieszka, A. J. (2023). Intersectional gender measurement: proposing a new metric for gender identity and gender experience. *Feminist Media Studies*, 23(3), 750-765. <https://doi.org/10.1080/14680777.2021.2018008>
- Kumar, R., & DeCuir-Gunby, J. (2023). What is the role of race in educational psychology? A review of research in Educational Psychologist. *Educational Psychologist*, 58(1), 1-17. <https://doi.org/10.1080/00461520.2022.2137804>
- Kucirkova, N. (2023). Commentary on Highly Successful Female Educational Psychologists: Equity and Intersectionality in Success Definitions. *Educational Psychology Review*, 35(1), 7. <https://doi.org/10.1007/s10648-023-09727-3>
- Kuo, Y.-L., Casillas, A., Walton, K. E., Way, J. D., & Moore, J. L. (2020). The intersectionality of race/ethnicity and socioeconomic status on social and emotional skills. *Journal of Research in Personality*, 84, 103905. <https://doi.org/10.1016/j.jrp.2019.103905>
- Kurian, N. (2023). Building inclusive, multicultural early years classrooms: Strategies for a culturally responsive ethic of care. *Early Childhood Education Journal*. <https://doi.org/10.1007/s10643-023-01456-0>
- La Barbera, M., Espinosa-Fajardo, J., & Caravantes, P. (2023). Implementing intersectionality in public policies: Key factors in the Madrid city council, Spain. *Politics & Gender*, 19(3), 675-702. <https://doi.org/10.1017/S1743923X22000241>
- Lalvani, P., & Bacon, J. K. (2019). Rethinking "We are all special": Anti-ableism curricula in early childhood classrooms. *Young Exceptional Children*, 22(2), 87-100. <https://doi.org/10.1177/1096250618810706>
- Lee-Johnson, Y. L. (2023). When immigrant mothers of color become public school teachers for English language learners: Intersectionality for transformative teacher preparation. *TESOL Quarterly*, 57(4), 1066-1090. <https://doi.org/10.1002/tesq.3171>
- Lee, K. H., Agarwal, A., Zhang, A. Y., & Xue, L. (2022). Model-based clustering of semiparametric temporal exponential-family random graph models. *Stat*, 11(1), e459. <https://doi.org/10.1002/sta4.459>
- Lei, R. F., Foster-Hanson, E., & Goh, J. X. (2023). A sociohistorical model of intersectional social category prototypes. *Nature Reviews Psychology*, 2(5), 297-308. <https://doi.org/10.1038/s44159-023-00165-0>
- Leyva, L. A., & Joseph, N. M. (2023). Intersectionality as a lens for linguistic justice in mathematics learning. *ZDM—Mathematics Education*, 1-11. <https://doi.org/10.1007/s11858-023-01489-0>
- López, F. (2022). Can educational psychology be harnessed to make changes for the greater good?. *Educational Psychologist*, 57(2), 114-130. <https://doi.org/10.1080/00461520.2022.2052293>
- Louie, N., Adiredja, A.P. & Jessup, N. Teacher noticing from a sociopolitical perspective: the FAIR framework for anti-deficit noticing. *ZDM Mathematics Education* 53, 95–107 (2021). <https://doi.org/10.1007/s11858-021-01229-2>
- Machado, E., Beneke, M. R., & Taitingfong, J. (2023). "rise up, hand in hand": Early childhood teachers writing a liberatory literacy pedagogy. *American Educational Research Journal*, 60(3), 486–520. <https://doi.org/10.3102/00028312231157661>

- Matthews, J. S., & López, F. (2020). Race-reimagining educational psychology research: Investigating constructs through the lens of race and culture. *Contemporary Educational Psychology, 61*, 101878. <https://doi.org/10.1016/j.cedpsych.2020.101878>
- May, V. M. (2015). *Pursuing intersectionality, unsettling dominant imaginaries*. Routledge. <https://doi.org/10.4324/9780203141991>
- McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of women in culture and society, 30*(3), 1771-1800. <https://doi.org/10.1086/426800>
- Merlo, J. (2018). Multilevel analysis of individual heterogeneity and discriminatory accuracy (MAIHDA) within an intersectional framework. *Social Science & Medicine, 203*, 74-80. <https://doi.org/10.1016/j.socscimed.2017.12.026>
- Mott Young, A. H., Parker, D. M., Ansoanur, F. P., Werner, I., & Banks, Y. S. (2021). Talking to children about race and racism. *JAMA Pediatrics, 175*(5), 544. <https://doi.org/10.1001/jamapediatrics.2020.7130>
- Moradi, B., Parent, M. C., Weis, A. S., Ouch, S., & Broad, K. L. (2020). Mapping the travels of intersectionality scholarship: A citation network analysis. *Psychology of Women Quarterly, 44*(2), 151-169. <https://doi.org/10.1177/0361684320902408>
- Nash, J. C. (2017). Intersectionality and its discontents. *American Quarterly, 69*(1), 117-129. <https://www.jstor.org/stable/26360804>
- Núñez, A. M. (2014). Employing multilevel intersectionality in educational research: Latino identities, contexts, and college access. *Educational Researcher, 43*(2), 85-92. <https://doi.org/10.3102/0013189X14522320>
- Núñez, A. M., Mayhew, M. J., Shaheen, M., & McChesney, E. (2023). Critical quantitative intersectionality: Maximizing integrity in expanding tools and applications. In *Handbook of Critical Education Research* (pp. 430-451). Routledge.
- Onnie Rogers, L., Versey, H. S., & Cielto, J. (2022). "They're always gonna notice my natural hair": Identity, intersectionality and resistance among Black girls. *Qualitative Psychology, 9*(3), 211. <https://doi.org/10.1037/qup0000208>
- Parker, P. D., Van Zanden, B., Marsh, H. W., Owen, K., Duineveld, J. J., & Noetel, M. (2020). The intersection of gender, social class, and cultural context: A meta-analysis. *Educational Psychology Review, 32*(1), 197-228. <https://doi.org/10.1007/s10648-019-09493-1>
- Phoenix, A. (2023). European Trajectories of Intersectionality. In *The Routledge International Handbook of Intersectionality Studies* (pp. 14-27). Routledge.
- Porter, C. J., Boss, G. J., & Davis, T. J. (2023). Just because it don't look heavy, don't mean it ain't: An intersectional analysis of Black women's labor as faculty during COVID. *Gender, Work & Organization, 30*(2), 657-672. <https://doi.org/10.1111/gwao.12820>
- Proctor, S. L., Kyle, J., Fefer, K., & Lau, Q. C. (2018). Examining racial microaggressions, race/ethnicity, gender, and bilingual status with school psychology students: The role of intersectionality. *Contemporary School Psychology, 22*(3), 355-368. <https://doi.org/10.1007/s40688-017-0156-8>
- Robert, S. A., Yu, M., Sauerbronn, F., & Özkazanç-Pan, B. (2023). Starting a dialogue in difficult times: Intersectionality and education work. *Gender, Work & Organization, 30*(2), 628-637. <https://doi.org/10.1111/gwao.12896>
- Scipio, D. A. (2023). Leveraging Intersectionality and Positionality in Praxis-Oriented Teacher Learning. In *How People Learn in Informal Science Environments* (pp. 213-224). Cham: Springer International Publishing.
- Scott, N. A., & Siltanen, J. (2017). Intersectionality and quantitative methods: Assessing regression from a feminist perspective. *International Journal of Social Research Methodology, 20*(4), 373-385. <https://doi.org/10.1080/13645579.2016.1201328>
- Schey, R. (2023). Literacy (Dis) Orientations in a Secondary Classroom: Possibilities and Limits of an Intersectional LGBTQ+-Inclusive Curriculum. *Reading Research Quarterly, 58*(1), 25-43. <https://doi.org/10.1002/rrq.485>
- Seider, S., Huguley, J., McCobb, E., Titchner, D., Ward, K., Xu, H., & Zheng, Y. (2023). How parents in multiethnic-racial families share cultural assets with their children. *Race and Social Problems, 15*(1), 5-18. <https://doi.org/10.1007/s12552-022-09384-1>
- Shrestha, G., Pakhtigian, E. L., & Jeuland, M. (2023). Women who do not migrate: Intersectionality, social relations, and participation in Western Nepal. *World Development, 161*, 106109. <https://doi.org/10.1016/j.worlddev.2022.106109>
- Sparks, D. M., Przymus, S. D., Silveus, A., De La Fuente, Y., & Cartmill, C. (2023). Navigating the intersectionality of race/ethnicity, culture, and gender identity as an aspiring Latina STEM student. *Journal of Latinos and Education, 22*(4), 1355-1371. <https://doi.org/10.1080/15348431.2021.1958332>
- Spierings, N. (2023). Quantitative intersectional research: approaches, practices, and needs. In *The Routledge International Handbook of Intersectionality Studies* (pp. 235-248). Routledge.
- Sundstrom, R. R. (2008). *The browning of America and the evasion of social justice*. Suny Press.
- Tripp, A. (2023). Abandoning inauthentic intersectionality. *Applied Psycholinguistics, 1-20*. <https://doi.org/10.1017/S0142716423000139>
- Usher, E. L. (2018). Acknowledging the whiteness of motivation research: Seeking cultural relevance. *Educational Psychologist, 53*(2), 131-144. <https://doi.org/10.1080/00461520.2018.1442220>
- Viveros-Vigoya, M. (2023). The Travels of Intersectionality in Latin America: Bringing the Desks Out onto the Streets. In *The Routledge International Handbook of Intersectionality Studies* (pp. 55-67). Routledge.
- Warr, M., & Wakefield, W. (2023). Supporting teachers in designing for intersectionality. In *Toward Inclusive Learning Design: Social Justice, Equity, and Community* (pp. 171-181). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-37697-9_14
- Wee, S. J., Meacham, S., & Kim, J. (2023). Being (Asian) American children: Children's exploration of racial/cultural identity and racism. *Race Ethnicity and Education, 1-24*. <https://doi.org/10.1080/13613324.2023.2170434>
- Williams, S. L., Job, S. A., Todd, E., & Braun, K. (2020). A critical deconstructed quantitative analysis: Sexual and gender minority stress through an intersectional lens. *Journal of Social Issues, 76*(4), 859-879. <https://doi.org/10.1111/josi.12410>
- Winkler, E. N. (2009). Children are not colorblind: How young children learn race. *PACE: Practical Approaches for Continuing Education, 3*(3), 1-8. https://nmaahc.si.edu/sites/default/files/downloads/resources/children_are_not_colorblind.pdf
- Wint, K. M., Opara, I., Gordon, R., & Brooms, D. R. (2022). Countering educational disparities among Black boys and Black adolescent boys from pre-k to high school: a life course-intersectional perspective. *The Urban Review, 1-24*. <https://doi.org/10.1007/s11256-021-00616-z>
- Whitebread, G., Dolamore, S., & Stern, B. (2023). Quantitative intersectionality: Imperatives and opportunities for advancing social equity. *Public Administration Review, 83*(1), 117-129. <https://doi.org/10.1111/puar.13555>
- Yeh, C. (2023). Discret noticing: Theorizing at the intersections of race and ability in mathematics education. *School Science and Mathematics. https://doi.org/10.1111/ssm.12628*