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Individual Versus Peer Grit: Influence on Later Individual Literacy Achievement of Dual Language Learners

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The objective of this short-term longitudinal study was to examine individual versus classroom peer effects of grit on later individual literacy achievement in elementary school. The dual language learner, largely Latina/o sample included students from the 3rd through the 5th grades. Participants completed a literacy achievement performance task at 3 time points over 4 months, in addition to student-reported grit at the first time point. Classroom peer grit, not individual grit, was a strong, significant predictor of an individual's later literacy achievement, adjusting for previous literacy achievement, age, gender, home language, and classroom clusters.

Impact and Implications
The current article found that classroom peer grit, not individual grit, was a strong predictor of individual literacy achievement 4 months later among dual language, largely Latina/o elementary school students. This study holds implications for educators of dual language learners who would be interested in the conclusion that grit's role in literacy achievement may not lie solely in an individual's character, but also in an individual's classroom context among dual language learner elementary schoolchildren.

Keywords: grit, peer, literacy

Grit, one's "perseverance and passion for long-term goals" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087), does not occur in a vacuum. Indeed, individual achievement may depend on the classroom context of grit, namely the grit of one's classmates. Models examining both individual and peer socioemotional influences on achievement deserve more attention (Becker & Luthar, 2002). This short-term longitudinal study examined individual and peer grit (i.e., the average grit of one's classmates) as competing predictors of later literacy achievement among dual language, largely Latina/o students.

Literacy Achievement of Ethnic Minority, Dual Language Learners

The gap between the literacy outcomes of Latina/o elementary school students and their White peers, as derived from national tests, is striking. Only 21% of Latina/o fourth graders read at a proficient level, compared with 46% of White fourth graders (National Center for Education Statistics, 2015). Latina/o, dual language learner children have been found to struggle with literacy (e.g., Carlo et al., 2004). Systemic

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obstacles like under-resourced schools and poor quality dual language learner education, in addition to English as a second language at home, may make literacy achievement especially challenging for low-income, ethnic minority, dual language learners (e.g., Taboada Barber & Gallagher, 2015). As children enter the upper elementary grades, the vocabulary demand of their texts is more academic and domain-specific which makes the role of vocabulary, efficiency, and reading comprehension all the more essential (Cain, Oakhill, & Lemmon, 2004). Therefore, reading decoding, fluency, and comprehension, which are assessed in this study, are especially important for Latina/o, dual language upper elementary school students.

Grit and Literacy Achievement

Grit relates to achievement among youth and adults (e.g., Duckworth, 2016), but no studies have examined literacy achievement as an outcome. Grit has been framed under the umbrella of many theories given its multidimensional operationalization, including personality, self-regulation, and motivation theories (Duckworth, 2016), and grit has been found to be related to the motivation construct of perseverance in a study of diverse youth (Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014). Motivation around literacy achievement may be a concern for dual language learners given that underdeveloped English language skills can have a negative impact on motivation among Latina/o youth (Roche & Kuperminc, 2012), especially for dual language learners' motivation around literacy (Taboada & Rutherford, 2011). Research does connect motivation with literacy achievement in upper elementary and middle school (e.g., Becker, McElvany, & Kortenbruck, 2010), including a limited number of studies with Latina/o dual language children (Castro, Paez, Dickinson, & Frede, 2011; Espinosa, Castro, Crawford, & Gillanders, 2007; Taboada, Tonks, Wigfield, & Guthrie, 2009). Given that grit overlaps with motivation, and motivation has been found to relate to literacy achievement of dual language learners, grit is ripe for testing with literacy achievement as an outcome among dual language learners.

Latina/o youth grit and achievement has only been examined as part of one study that included 45% Latina/o and 42% African American high school juniors. Grit was found to predict high school retention across the entire sample, after controlling for demographics, conscientiousness, motivation, grades, and standardized test scores; no ethnic differences were reported, but females were more likely to report higher grit than males (e.g., Eskreis-Winkler et al., 2014). In contrast, another study found that grit was not related to achievement among Latina/o first generation college students (O'Neal et al., 2016). Control variables in the limited youth grit literature include child demographics (age, gender, race, free or reduced lunch), IQ, and conscientiousness (e.g., Eskreis-Winkler et al., 2014). Research has found that adult grit scores do not differ by gender (e.g., Duckworth & Quinn, 2009), youth grit scores do differ by gender (Eskreis-Winkler et al., 2014), and grit has a positive correlation with age among young adults (e.g., Duckworth & Quinn, 2009).

It is critical to further examine the relation of grit with achievement in elementary student populations, because, to our knowledge, there are only three studies of younger students' grit—one with fourth through eighth graders (e.g., Rojas & Usher, 2012), and two with high-achieving, largely Caucasian 10- to 15-year-olds (Duckworth, Kirby, Tsukayama, Berstein, & Ericsson, 2010; Duckworth & Quinn, 2009). None of the few grit studies including elementary school students have reported how grit-achievement relations may differ or be similar for ethnic minority students. Also, no studies have examined the relation of grit with achievement or literacy achievement among exclusively young, ethnic minority or Latina/o student populations.

Peer Versus Individual Grit Effects

Previous grit-achievement models have assumed that only an individual's, not classmates', grit influences achievement. In contrast, this study relied on an ecological framework which posits that individual achievement is dependent on the social environment in which individuals are embedded (Bronfenbrenner, 1979). This article conceptualizes grit as a malleable state, rather than trait (Eskreis-Winkler et al., 2014), which may be susceptible to group influence, with consequences for achievement. Indeed, Duckworth (2016) has written about

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grit being a more mutable, rather than an immutable, personality trait; and, she has argued that grit may be responsive to intervention. Little grit research has tested what factors might influence grit, although one study has found that more stress is associated with less grit (e.g., O'Neal et al., 2016). Although it has not been studied, it may be possible that grit is susceptible to group influence.

Classmates' grit may develop due to the influence of group-level processes in class. For instance, class-level reading instructional practices supporting self-regulation and motivational processes have been found to increase class-level motivation, engagement, and literacy of Latina/o middle school dual language learners (Taboada Barber et al., 2014). The classroom context is a social setting in which students spend most of their time in school, and classroom norms are defined as codes of behavior which members of the classroom enact (Bendor & Swistak, 2001). Average socioemotional functioning in a classroom can be viewed as a class-level descriptive norm (e.g., Sentse, Veenstra, Kiuru, & Salmivalli, 2015). Indeed, a number of studies have found that the class average, or norm, effect is equally or more predictive of individual outcomes in school compared to the predictive power of individual effects (e.g., Mercer et al., 2009). No studies, however, have tested the relative impact of peer class average grit and individual grit effects on achievement.

A long history of actor-group partner research in counseling groups has reported that group members' psychological qualities influence an individual's performance, above and beyond an individual's psychological qualities (Ervin & Bonito, 2014). Such group research has relied on social influence theory, specifically a group actor-partner interdependence model (GAPIM) that conceptualizes individual performance as dependent on group partners' scores (Kenny & Garcia, 2012). This study conceptualizes average classmate grit as reflecting socioemotional norms created in the classroom. Rather than use a class-level descriptive norm (i.e., an average across all individuals including the target individual), as classroom norms have traditionally been operationalized in classroom norm research (e.g., Sentse et al., 2015), this study used an average of an individual's classmates' grit, not including the individual, to best capture "others'," or group partners', effects (Ervin & Bonito, 2014). This method has been recommended by Kenny, Mannetti, Pierro, Livi, and Kashy (2002) as a more appropriate way to model the effect of "others" in a group on individual performance. This study moves the field of socioemotional factors and achievement forward by testing individual versus peer grit (i.e., average grit of one's classmates) prediction of literacy achievement among dual language learners.

> *Hypothesis:* This study tests the hypothesis that average peer grit will have an equal or stronger effect than individual grit on later individual literacy achievement of low-income, dual language learners, adjusting for previous literacy achievement, age, gender, home language, and classroom clusters.

Method

Sample

This study included a dual language learner, largely Latina/o sample of 3rd, 4th, and 5th graders who were students at a Title 1 suburban elementary school serving low-income students (n = 142; Table 1). School-level statistics indicated that 95% of the students received Free and Reduced Meals (FARMS); note that the school district did not permit us to ask students or parents about their socioeconomic status. All procedures were conducted with institutional review board approval from the school district and researchers' university, including student assent in addition to parent consent. Of 256 students total in 3rd through 5th grades, the study sample represented a 55% recruitment rate. The recruitment rate per class ranged from a low of 33% per class to a high of 70% per class, with the majority of classes near 55% to 60% recruitment per class. Given the range of recruitment per class, this study cannot rule out that participation was related to classroom membership. Comparisons of students who participated versus did not participate could not be conducted since nonparticipation was caused by failure to return consent forms, which included demographic information.

Only students who were dual language learners were included in this sample. In the litera-

Table 1
Participant Demographics

Demographic	*n*	%
Child sex: Female	77	54
Age		
8 years	24	17
9 years	51	36
10 years	42	30
11 years	24	16
12 years	1	1
Grade level		
3	50	35
4	43	30
5	49	35
Ethnicity		
Latina/o	106	75
Black	20	14
Asian	12	8
Other ethnic minority	4	3
White	0	0
Primary spoken at home		
English	27	19
Spanish	89	63
French/Haitian Creole	4	3
Vietnamese	2	1
Other (e.g., Vietnamese, Bengali, Arabic)	20	14

ture, dual language learner operationalization ranges from more to less inclusive. For instance, the definition has ranged from "a child living in a household where at least one person older than five years speaks a non-English language" (Child Trends, 2014) to "children who speak a language other than English at home" (Migration Policy Institute, 2017). Using student and parent-report, we chose a less inclusive operationalization and coded students as dual language learners if they spoke a non-English language with at least one parent. Therefore, from the original sample of 149, we removed seven students who were non-dual language learners. Spanish was the non-English language reported by the majority of students as spoken with at least one parent (see Table 1). In this sample, 82% of students reported a non-English language as the primary language spoken at home. The remaining 18% reported English as the primary language spoken at home, in addition to speaking a non-English language with at least one parent at home.

Procedure

Data was collected at Time 1 from January to February 2014, Time 2 from March to April 2014, and Time 3 from May to June 2014. Time 1 grit was measured via student report, and Times 1 to 3 literacy achievement via a reading performance task. The data for this study came from a larger study which included these and other socioemotional variables which were collected at all three time points. The time between Time 1 and 3 was nonequivalent among individual students. The mean number of days between Time 1 and 3 across students was 120 days, which is about four months; the standard deviation was 16 days.

Graduate research assistants read questionnaire items out loud to each student, one-on-one, and students selected responses by saying or pointing to an answer which the graduate assistant recorded on the printout. We found that this method allowed us to best judge student item comprehension and promoted student comfort with asking clarification questions. Each student also completed a 3-min reading performance task which was administered in English regardless of language proficiency.

Note that the peer grit variable included in this paper has not been published elsewhere; another article under review with this data tests a model of stress predicting later literacy via the mediator of latent teacher-reported individual grit and engagement.

Measures

Grit. Time 1 student-reported grit was assessed in this study using the eight-item Short Grit Scale (Grit-S; Duckworth & Quinn, 2009), with minor adaptations (i.e., simplification of phrasing and vocabulary) for a younger sample with limited English proficiency. Students rated how much four statements about the student's consistency of interests (e.g., "I often set a goal but later choose to pursue a different one") and four statements about perseverance of effort (e.g., "I finish whatever I begin") described themselves, on a 5-point scale (1 = *not at all*, 5 = *very much*); a grit total score was created using an average of the eight items. The variable of peer grit was created using an average of the individual's class members' grit scores, not including the individual's grit score. The psychometrics of the Grit-S have been well-established with diverse samples of youth and adults (e.g., Duckworth & Quinn, 2009). For

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this study, the student grit alpha was adequate at .72.

Literacy achievement. Literacy achievement was assessed via an index score from the Test of Silent Reading Efficiency and Comprehension (TOSREC; Wagner, Torgeson, Rashotte, & Pearson, 2010), which is a performance task that assesses students' silent reading fluency (speed), decoding (accuracy), and comprehension. Students have three minutes to read as many sentences as possible and decide if each is true or false. The TOSREC has excellent reliability and convergent validity with other measures of literacy such as the Woodcock-Johnson Tests of Academic Achievement (Kim, Wagner, & Foster, 2011).

Analyses

The regression model was tested via structural equation modeling (SEM) using Mplus (Version 7.4; Muthén & Muthén, 1998–2011) with Time 1 individual and peer grit predicting Time 3 literacy achievement, adjusting for previous literacy achievement (see Figure 1). In addition, control variables of child gender, age, primary home language (i.e., English, Spanish, and other languages spoken at home), and classroom cluster effects (detailed subsequently) were included in the model. The primary relations of interest in this study were Time 1 individual and peer grit prediction of Time 3 literacy. However, given the significant bivariate correlation of Time 1 grit with Time 2 literacy, Time 1 peer and individual grit were set to predict Time 2 literacy in the model, to avoid model misspecification; the model also controlled for gender, primary language, age, and cluster effects in the prediction of Time 2 literacy.

This model design was based on the recommendation that, rather than using the group mean as a second-stage predictor, the group

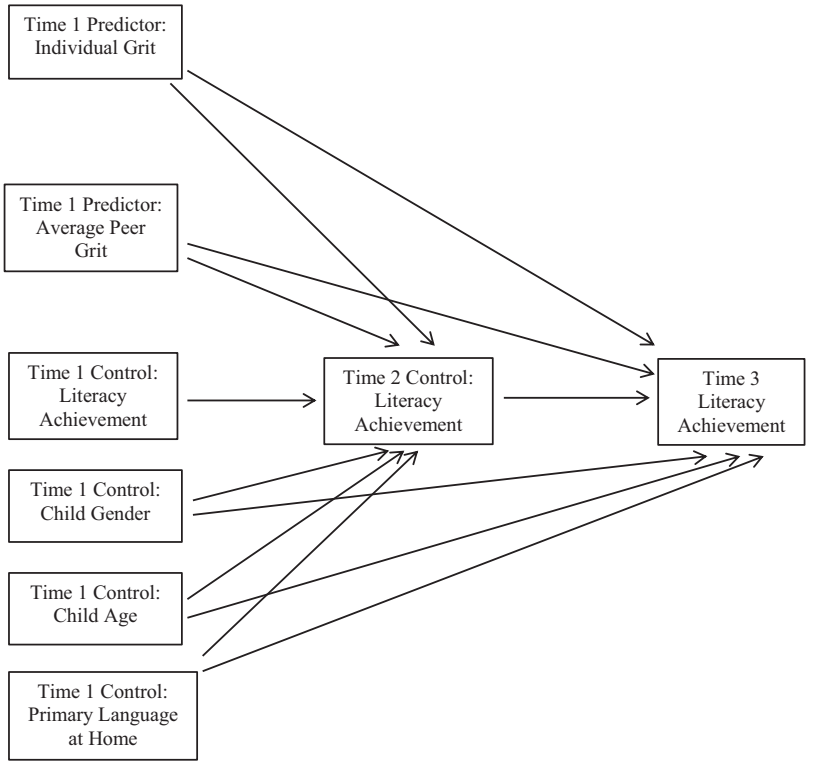

Figure 1. Time 1 individual grit versus peer grit prediction of Time 3 literacy achievement. Controls included Time 1 child age, gender, primary language spoken at home, and classroom clusters (not shown in figure) in addition to Time 1 and Time 2 literacy achievement.

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mean (not including the individual's score in the group mean) be used as a predictor along with the individual's mean as another predictor in first-stage or individual-level analyses and adjusting for group membership (i.e., which class the student is in; Kenny et al., 2002). The model also adjusted for Time 1 predicting Time 2 literacy achievement and Time 2 predicting Time 3 literacy achievement. To my knowledge, prior grit research has not adjusted for previous achievement when predicting later achievement.

All Time 1 predictors were set to be correlated with each other, and Time 1 and Time 3 literacy were set to be correlated with each other to improve model fit. Students were nested within 12 classrooms, so this study adjusted for classroom clustering effects by employing a fixed-effects model (FEM) which has been shown to provide trustworthy estimates with a small number of clusters compared to multilevel modeling, design-based corrections (i.e., sandwich estimators; even with corrections), or Bayesian methods without strongly informative priors (McNeish & Stapleton, 2016). A FEM approach to adjusting for cluster effects involves using each cluster (classroom) as a Level 1 control variable. Specifically, a cluster dummy code was created for each cluster (classroom) membership for each participant. All 12 cluster dummy codes were included as control variables in predicting the two outcomes of Time 2 and Time 3 literacy; to conduct FEM, the two outcome intercepts were set to zero and bootstrapping is typically conducted (Cameron, Gelbach, & Miller, 2008). There were 20 Time 1 predictors of Time 2 and Time 3 literacy achievement (i.e., individual grit, peer grit, previous literacy, age, gender, three language variables [English, Spanish, and other], and 12 classroom cluster dummy codes). The current study conducted bootstrapping significance testing with 10,000 sample replicates, as recommended by Preacher (2015). A benefit of FEM with small samples is one does not have to be concerned about misspecifying the model at Level 2 because FEM will also account for all classroom level variables—even those that were not included in the data. Peer grit was set to be correlated with the cluster dummy codes given that an individual's peer grit average is a function of individual's classroom membership. There were only two cases missing the TOSREC literacy achievement outcome by Time 3. A maximum likelihood standard error estimation approach was used (Muthén & Muthén, 1998–2011).

Results

Descriptives and Correlations

Table 2 depicts descriptive statistics and correlations. The mean grit score, with an average score of 3.84 on a full possible range of 1 to 5, was similar to older youth and adult average grit scores from other studies (e.g., Eskreis-Winkler et al., 2014). The mean literacy index score was

Table 2
Correlations Among Student Grit, Peer Grit, and Literacy Achievement in Addition to the Control Variables of Age, Gender, and Primary Home Language

	1	2	3	4	5	6	7	8	9	10	*M* (*SD*)
1. Time 1 Grit	—										3.81 (.68)
2. Time 1 Peer grit	−.09	—									3.81 (.17)
3. Time 1 Literacy	.25**	.13	—								84.65 (13.01)
4. Time 2 Literacy	.28**	.03	.71***	—							87.45 (14.64)
5. Time 3 Literacy	.24**	.14	.76***	.77***	—						86.14 (14.05)
6. Time 1 Age	−.13	−.34**	−.37**	−.15	−.27**	—					9.5 (.99)
7. Female	.08	.00	.14	.14	.11	−.15	—				
8. English home language	.10	−.15	.14	.12	.08	−.02	.23**	—			
9. Spanish home language	−.09	.12	−.20*	−.20*	−.15	.03	−.21*	−.63**	—		
10. Other home languages	.01	.01	.08	.11	.07	−.08	.05	−.20*	−.53**	—	

* $p < .05$. ** $p < .01$. *** $p < .001$.

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strikingly low at an index score of 86 for Time 3, which falls at the 25th percentile. There was a significant bivariate correlation between individual grit and literacy at Times 1 to 3, but there was neither a significant correlation of peer grit with literacy nor with individual grit. Using a one-way analysis of variance (ANOVA) with 12 levels (for 12 classes), there was not a significant difference for individual grit by class membership, and there were no significant differences by class for literacy at Times 2 and 3. There was, however, a significant difference by class membership for Time 1 literacy, $F(11, 128) = 2.26$, $p < .05$.

Individual and Peer Grit Prediction of Literacy Achievement

Model testing was conducted via SEM with Time 1 individual and peer grit predicting Time 3 literacy achievement, adjusting for previous literacy achievement, age, gender, primary home language, and classroom cluster effects (see Figure 1). As expected, modeling results indicated that Time 1 peer grit was a strong, significant predictor of later Time 3 literacy achievement, and the individual grit effect was not significant. Indeed, peer grit [Estimate = .22(.06)] was twice as strong as individual grit [Estimate = .11(.06)] in predicting Time 3 literacy on the basis of the magnitude of the standardized estimates (see Table 3). The only significant control variables were Time 1 English, Spanish, and other languages as primary home languages, which had positive associations with Time 2 literacy (see Table 3). The model fit was adequate with root mean square error of approximation (RMSEA) = .04, comparative fit index (CFI) = .98 and standardized root mean residual (SRMR) = .03; recommended RMSEA cutoff is less than .06, CFI cutoff is more than .95, and SRMR cutoff is less than .08 (Hu & Bentler, 1999).

To rule out possible model overfit due to a large number of predictors (Babyak, 2004), this article compared the magnitude of key estimates in the full model reported above (i.e., 20 Time 1 predictors of Time 2 literacy and Time 3 literacy) with a reduced model without age, gender, primary language, and classroom cluster control variables (i.e., three Time 1 predictors of Time 2 and Time 3 literacy). Similar to the full model results reported above, peer grit was a significant predictor, and individual grit was not a significant predictor of Time 3 literacy; peer grit had a somewhat smaller, but still significant, magnitude in the reduced model without controls [Estimate = .11(.03)] compared with the full model reported above with

Table 3
Individual Versus Peer Grit Prediction of Literacy Achievement Estimates

Path	Standardized estimates (standard error), confidence intervals [CI]
Predictor: T1 Individual Grit→T3 Literacy	.11 (.06), CI [−.01, .24]
Predictor: T1 Peer Grit →T3 Literacy	.23 (.06)***, CI [.11, .35]
Control: T2 Literacy→T3 Literacy	.47 (.08)***, CI [.32, .63]
Control: T1 Gender→T3 Literacy	.03 (.05), CI [−.07, .13]
Control: T1 Primary English→T3 Literacy	−.19 (.16), CI [−.46, .10]
Control: T1 Primary Spanish→T3 Literacy	−.31 (.19), CI [−.60, .03]
Control: T1 Primary Other→T3 Literacy	−.22 (.15), CI [−.46, .04]
Control: T1 Age→T3 Literacy	−.24 (.12), CI [−.47, .01]
Predictor: T1 Individual Grit→T2 Literacy	.11 (.06), CI [−.01, .23]
Predictor: T1 Peer Grit →T2 Literacy	−.03 (.05), CI [−.13, .07]
Control: T1 Literacy→T2 Literacy	.72 (.06)***, CI [.61, .83]
Control: T1 Gender→T2 Literacy	.02 (.06), CI [−.11, .14]
Control: T1 Primary English→T2 Literacy	.23 (.15)*, CI [.03, .42]
Control: T1 Primary Spanish→T2 Literacy	.25 (.17)*, CI [.04, .45]
Control: T1 Primary Other→T2 Literacy	.21 (.13)*, CI [.03, .37]
Control: T1 Age→T2 Literacy	.03 (.11), CI [−.18, .26]

Note. This model also controlled for 12 dummy classroom cluster codes. T1 = Time 1; T3 = Time 3; T2 = Time 2.
* $p < .05$. *** $p < .001$.

controls [Estimate = .22(.06)]. The magnitude of individual grit in the reduced model was the same as in the full model, with an estimate of .11. Although the magnitudes of individual and peer grit estimates in the reduced model were similar, only peer grit was a significant predictor in the reduced model. The model fit was adequate in both reduced and full models. Given the similar results in the full and reduced models in addition to the importance of controlling for classroom clusters, age, gender, and primary language, the results from the full model remain the primary results reported in this article.

Discussion

Socioemotional factors like grit need to be examined among diverse samples and contexts contributing to achievement, rather than simply as static, general traits which occur in a vacuum (Turiel, 2016). This short-term longitudinal study went a step beyond previous grit research and found that one's peers were twice as influential as individual grit in predicting later literacy achievement among low-income, largely Latina/o, dual language elementary school students.

Peer Grit and Literacy Achievement

This study's findings highlight the potential of the classroom context, compared to the individual, in predicting achievement. Using ecological and GAPIM models as a framework, these results indicated that an individual's outcomes are dependent on their social environment, namely their group partners' psychological qualities, more than they are dependent on an individual's psychological qualities (Bronfenbrenner, 1979; Kenny & Garcia, 2012). Such findings are similar to previous research on groups and classroom norms which found that the group's qualities can be equally, if not more, predictive of performance (e.g., Ervin & Bonito, 2014; Mercer et al., 2009). Indeed, this study found that peer grit predicts later but not earlier literacy achievement which suggests that it may require some time with one's peers to have an effect on literacy. Perhaps peer grit effects are not due to class composition, but, instead, these results imply that time with one's peers via social interaction in the classroom may be necessary for peer grit to have an effect on literacy.

The black box of classroom influence around class-level socioemotional processes, specifically grit, and their relations with academic performance deserves to be opened in future studies. Classmates' grit may depend on class-level instructional processes, like class-wide teacher practices promoting motivation, self-regulated learning, and literacy achievement among dual language learners (Taboada Barber & Gallagher, 2015). This research area would benefit from an examination of microprocesses, via observation-based coding of class-level processes in the classroom, in addition to daily diaries and more qualitative investigations of how grit processes in the classroom may be related to individual achievement. It is worth investigating if peer grit serves as either a positive or negative model of literacy achievement behaviors. Given the challenge of literacy for many dual language learners, those with high grit may be more likely to persevere in this difficult activity. If a student sees how peers persevere in a difficult achievement task, this may model perseverance for the individual in achievement (e.g., Schunk, Hanson, & Cox, 1987).

Limitations

A short-term longitudinal design may not best capture the relations in this model; on the other hand, short-term longitudinal studies may be ideal for testing complex models due to many variables having their strongest impact in a shorter time (Lerner & Lamb, 2015). Given a 55% recruitment rate, the self-reported grit of nonparticipating peers was not obtained. Therefore, the validity of the average peer grit may have been affected by the lack of inclusion of nonparticipating peers' grit in the peer grit variable. This study was not able to rule out if participation was related to class membership or student variables because we were not able to obtain relevant information about nonparticipants. In addition, literacy levels were strikingly low in this sample, so these results may be unique to dual language learners with low literacy levels. This study had neither the power nor sample literacy variability to take into account the wide variation in academic English across dual language learners, and future research

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should take into account the highly variable levels of dual language learner proficiency in academic English. A larger sample would permit a more complex model to be tested; an ideal model would include more control factors that might be relevant (e.g., socioeconomic status; parent literacy levels). Also, future studies would improve upon the present study by recruiting representative samples of different ethnic groups, rather than merging all ethnic groups together.

Implications for the School Context

It is too early to judge if class-wide grit interventions hold potential for literacy achievement based on this research. Although a small number of individual-level, grit-related interventions have been conducted, many have offered only informal guidance on integrating grit-related practices into instruction (Hoerr, 2013), whereas other interventions were more systematic and included formal evaluation (e.g., Duckworth, Grant, Loew, Oettingen, & Gollwitzer, 2011). One of the strongest grit-related intervention studies was by Duckworth, Kirby, Gollwitzer, and Oettingen (2013) who promoted self-regulatory skills similar to grit: self-control and goal pursuit, and they found that the intervention increased grades and attendance among low-income, Latina/o and Black middle school students; the intervention involved students setting intentions for getting past obstacles to one's goals. In the future, deeper investigations of potential mechanisms between peer grit and literacy achievement, in addition to replications with larger samples, are necessary before class-wide grit intervention development. The contribution of this article is that grit's role in literacy achievement does not lie solely in an individual's character, but may also lie in an individual's classroom context among dual language elementary schoolchildren.

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