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## *Original Paper*

# The impact of student: teacher ethnic congruence on student treatment and relationships at school: an international review of evidence

Stephen Gorard, Yiyang Gao, Antonina Tereshchenko, Beng Huat See, Nadia Siddiqui,  
and Feyisa Demie

Durham University Evidence Centre for Education

s.a.c.gorard@durham.ac.uk

## **Abstract**

There has been growing interest in and concern over the disproportionality of the ethnicity of school teachers compared to the ethnicity of the students they teach, especially in the US where much of the research is focussed. Similar issues arise in England and other developed education systems. Generally, ethnic minorities are under-represented in the teacher workforce. This could influence how ethnic minority students are treated in schools, and the outcomes they attain. Here we present a structured review of the worldwide prior evidence on ethnic disproportionality and school processes like attendance, disciplinary referrals or teacher:student relationships. The paper describes our search terms, databases used, and inclusion criteria. Our search located 62 reports that could contribute to causal evidence on these themes. We found very few studies that could be considered well-designed to assess a causal relationship between student:teacher ethnic matching and outcomes. Most of the best studies are large-scale but only correlational. However, there is a lot of evidence that ethnic matching is linked to better relationships between minority students and staff, higher attendance at school, and less differentiated expectations and disciplinary referrals for minority students. The paper ends by looking at the possible implications for countries like England where there is less existing evidence so far. One clear implication is that a system with ethnic mix and diversity of students benefits in a variety of ways from also having a more proportional diversity of teaching staff – whether students and staff are specifically matched or not.

## **Introduction**

There is a disproportion in many countries between minority ethnic students and teachers, including in the US (Chapman and Brown 2020), and England (Gorard et al. 2023). This disproportion, or lack of role models for ethnic minority students, could influence school processes and attainment outcomes (Goldhaber et al. 2019, Gorard et al. 2024a), and this might lead to unfairness for ethnic minority students. This new paper synthesises research on the effects of having a same race or ethnicity teacher on students' academic and non-academic outcomes. It starts by presenting the issue of student-teacher ethnic congruence and how it could relate to a variety of school processes and outcomes, using some of the prior literature. It then describes the methods used in our structured review of international evidence and summarises the results in terms of themes such as attainment, school attendance, discipline, expectations, and relationships. The paper concludes with a discussion of the results, their likely implications, and next steps.

## **Evidence that there may be bias in teacher treatment and judgements**

Much of the prior evidence, on whether students having teachers of the same ethnicity makes a difference in school processes and outcomes, is from the US. Much of it also appears quite weak, based on personal anecdotal accounts, and research designs that are not able to demonstrate a causal relationship. We consider some of the stronger and most relevant studies in the review that follows. Here we introduce the more important themes.

### *Discipline*

Black students in the US have been disproportionately referred for disciplinary reasons, and suspended and excluded from school, compared to White students (Jordan and Anil 2009, Santiago-Rosario et al. 2021). There could be a link between the ethnic congruence of staff and students in making decisions about student discipline. In a large-scale study (but with a lot of missing data), Gullo and Beachum (2020) found that school administrators appeared to hold implicit biases towards White students when making disciplinary decisions, especially in areas not objectively guided by law, policy, or codes. Another US study found that while Black students were reported to have somewhat worse classroom behaviour, Black teachers as well as White were more likely to give negative feedback to Black students regardless of their behaviour (Scott et al. 2019).

The prevalence of racial bias in the U.S. has been evidenced through experimental studies using vignettes, where teachers are asked to judge disciplinary cases with students' ethnicities subtly implied. These studies indicate that teachers, including pre-service teacher trainees, may harbour biases against African American students, influencing their disciplinary judgments (Lorenzetti and Johnson 2022, Woods 2023, Briscoe-Juin 2020).

However, there is a different picture in some European contexts. A similar vignette-based study focused on school exclusions in Europe revealed a different bias among teachers. In this study, teachers showed greater concern for the potential negative impacts of exclusion on Arab minority students than on White Czech majority students, with a particular sensitivity noted towards girls (Kollerová and Killen 2021). In England, analysis of national pupil data shows that suspensions and exclusions are more ethnically neutral, at least in terms of proportions (Gorard et al. 2024b). This suggests that educators' biases and the dynamics of exclusion may vary significantly across different cultural and national contexts.

### *Relationships*

Students who have good relationships with their teachers tend to have higher attainment and fewer discipline referrals (Crosnoe et al. 2004, Pollard 2022). And students may have better relationships with teachers of the same ethnicity. Some studies have found that students report same ethnicity teachers being more supportive of them. Tyler (2021) found this with American Indian students and teachers. Other studies suggest that same ethnicity teachers are more culturally responsive to their students (Castro and Calzada 2021). This issue tends to interact with the sex of the student – Black boys were seen by all teachers as creating more conflict in school, with White boys and Black girls seen as more problematic than White girls (Rudasill et al. 2023).

Black students tend to see Black male teachers as having better relationships with them, and so making an important contribution to their development (Brooms 2017). It is not even necessary to have matched student and teacher ethnicity for this benefit. As long as there is diversity in school staffing there tends to be less apparent racial/ethnic bias in relationships (Chan et al. 2023).

### *Expectations*

There is considerable variation between teachers in their expectations for specific students, and expectations can be linked to students enrolling in and completing post-compulsory education (Papageorge et al. 2020). Studies in the US have found that many teachers perceived Black students as being lower attaining, and worse behaved than White students (Minor 2014). Different perceptions of some ethnic groups are even linked to judgements about whether students have a learning challenge or disability (Cooc 2017). US Black, Hispanic, and Native American students are more likely to be judged as having a disability than White and especially Asian American students. Black students are also less likely to be assigned to gifted and talented programmes than White or Latino/a students (Redding 2019). They are more likely to be excluded, or dropout, from school.

In summary, there is prime facie evidence that ethnic disproportion between students and teachers in schools might affect student treatment and outcomes. To investigate this, we conducted a much fuller and systematic review of the available evidence on this topic.

## Methods

This paper is based on a structured review of prior evidence. The overarching research question is:

- What are the effects of teacher:student ethnic (or racial) matching (and teacher ethnic representation) on student experiences and wider outcomes?

### *Search databases and terms*

The searches took place from February to March 2023, and included Proquest, EBSCO host, Web of Science, Scopus, and the Australian Education Index. The search included a range of terms for academic and non-cognitive school outcomes, and processes, as well as synonyms for the ethnic congruence of students and teachers (and diversity of the teaching staff). This paper only considers the results for non-attainment outcomes (see Gorard et al., 2024a for attainment outcomes).

The precise search terms were adjusted for each database (and appear in full in the Appendix). In addition, we have included research reports already known to us, recommended, or found in the bibliography of prior reviews discovered in the search.

### *Inclusion criteria*

We searched for any relevant evidence from any country worldwide, involving any combination of ethnic groups. We included studies from 2000 onwards, on the basis that earlier studies might describe different circumstances.

We included any empirical study that could help respond to our causal question, including comparative, correlational, longitudinal, and experimental designs. The study had to include the relative ethnic prevalence of students and teachers, or measures of student teacher ethnic matching. And it had to assess school processes or wider outcomes such as discipline (see above). Anecdotal, opinion and other non-empirical pieces are excluded.

The research concerns students in any grade or year, excluding studies solely about pre-school or post-compulsory education, and informal learning.

### *Screening*

Studies located by the search were screened for relevance to the research question, using the criteria above (2,419 reports). If there was any doubt, the piece was retained at this stage. In most cases, both the title and the abstract were reviewed. Each item was sorted into a folder based on whether it should be included for screening the full text, or excluded with the main reason noted for any exclusion. This process was conducted by five researchers, who initially looked at 20+ pieces together to assist consistency. Every piece was assessed by at least two researchers. There was a high level of agreement on include/exclude decisions (Figure 1). We ended up with 351 reports after initial screening and removal of duplicated reports.

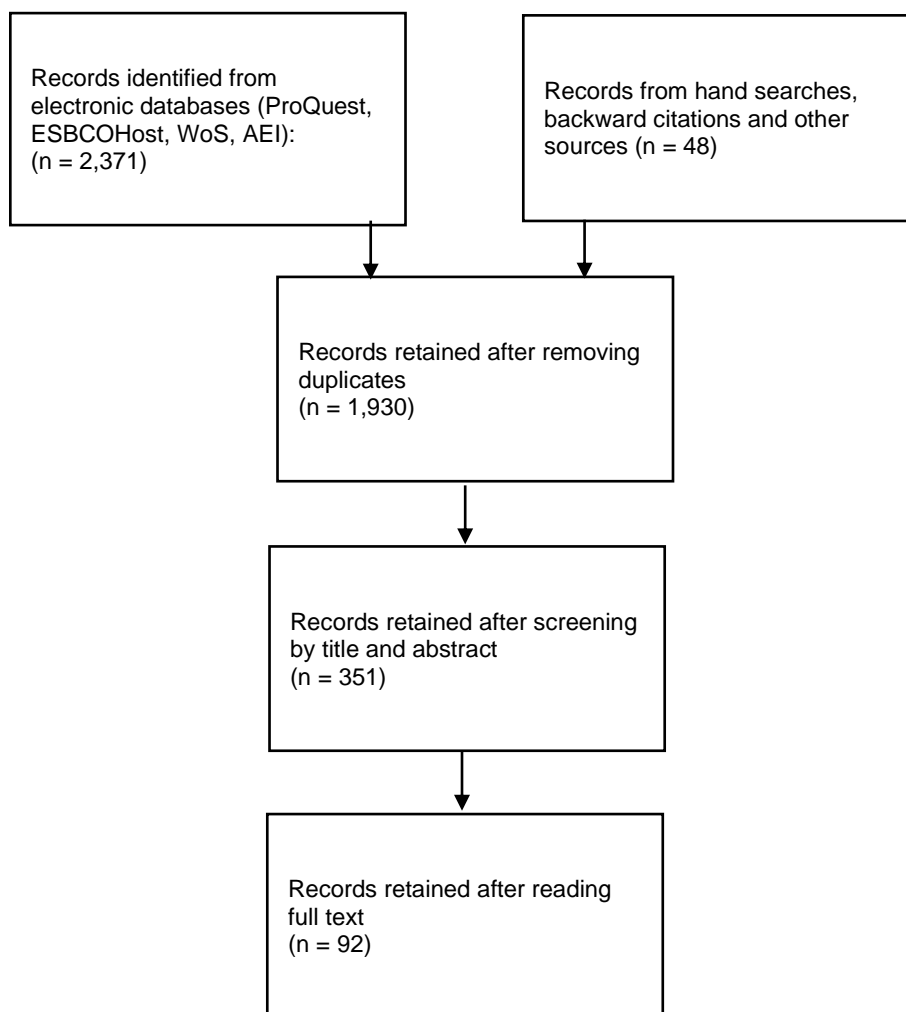


Figure 1. Flowchart tracking the flow of studies from identification to inclusion

Following this, the remaining items were screened via full text. We excluded 259 of these after reading full texts, retaining 92. Of these, 62 were relevant to this review (i.e. not chiefly about attainment). Those that were retained were data extracted and assessed for quality. Quality was judged from a rating of 0 (not adding any trustworthy evidence) to 4□ (the best that could be expected in relation to the research question), using the Gorard Sieve (Gorard 2021, 2024). The Sieve is based on the fit between the study design and our causal research question, the scale of the study, the level and skewness of missing data, and the quality of the data.

The causal research question for the review would best suit causal designs like experiments and quasi-experiments, with correlational and longitudinal studies rated lower. A majority of the studies were limited to 2□ ratings - these were mostly large-scale correlational studies, sometimes with substantial missing data or values, based on administrative and similar datasets.

We consider the remaining 62 studies in terms of four inter-related themes – school attendance, discipline, expectations, and relationships. The terminology describing ethnic and racial groupings tends to vary between countries and over time. We have generally used the terminology appearing in the papers described.

#### **Attendance/Absence**

The first themes concerns any link student:teacher ethnic congruence and improved attendance at

school. Our review found six studies relevant to ethnic congruence and reduced absence from school. All showed positive results, at least for ethnic minority students (Table 2), so that although none of the studies is especially strong, the overall weight of evidence is very promising here.

Table 2. Quality of studies and attendance outcomes

	Positive	Mixed or unclear	Negative or neutral
4□	-	-	-
3□	1	-	-
2□	3	-	-
1□	2	-	-

Note that throughout the paper “negative” means that no link was found between congruence and outcomes, or that a link was associated with worse outcomes. The term “negative” does not imply whether such a result is desirable or not.

### 3□ studies

In 1985/6, the Tennessee project STAR randomly assigned 11,600 kindergarten students and 1,330 teachers in 79 participating public schools to classes of different sizes (Tran and Gershenson 2021). As a by-product some students were randomised to teachers of the same race and some not. For Black students, assignment to a Black teacher was associated with a reduction in the probability of chronic absence by 3.1 percentage points.

### 2□ studies

Three studies were 2□-rated – using large and using administrative data or similar, but only correlational in design. Holt and Gershenson (2017) used administrative data on all primary school students and teachers in North Carolina public schools, 2006-10. The sample size and attrition is not clear, but the number of observations for different models range from 1,400,434 to 2,124,022. Student:teacher racial mismatch is linked to higher absenteeism. The effect sizes are small.

Gottfried et al. (2022) used administrative data provided by a high school district in California for 2013-17. Student–teacher ethnicity matching was linked to a decrease in the absence rates for chronic absences, and overall absences as well as unexcused absences, by around 10 percentage points. This was for Latinx students who had Latinx teachers. Students who were eligible for free or reduced priced lunch, migrant students, and students who were chronically absent the previous school year, experienced greater reductions in their absenteeism when paired with a same race and ethnicity teacher compared with their White counterparts. White students having a White teacher did not reduce absentee rates.

Using data on racial/ethnic teacher and student demographics and assessment results for 2,510 schools in New Jersey, 2018/19, Minus-Vincent (2022) reported that Black students taught by Black teachers had better attendance rate than their peers not taught by teachers of the same ethnicity.

### 1□ studies

Two studies were rated 1□ - similar to the 2□ studies, but with poorer reporting of key information. Scott et al. (2023) analysed teacher and student demographic and attendance data from 702 public schools in central Texas. Teacher-student race congruence contributed to the variance in student attendance. The number of students and teachers is not clear.

The sample for Chhikara (2023) consists of 16,980 early-grade children from the Early Childhood Longitudinal Study: Kindergarten Class of 2011 dataset. Attrition is not known. Positive student-teacher relationships had a negative association with chronic absenteeism, while negative relationships have a positive association with chronic absenteeism. White teachers perceive their

relationships with Black students as less positive than with White students. Black students assigned to White teachers are more likely to be chronically absent compared to White students assigned to White teachers.

In studies with multiple outcomes to be described below, the link between congruence and absence is also supported by Rasheed et al. (2020), and Cleveland and Scherer (2024), especially for Black students. It seems that there is a clear association between teacher and student racial congruence and increased attendance at school for ethnic minorities. The supportive evidence even includes an experimental design. The evidence is predominantly from the US, but the lesson for other countries could be important.

### **Discipline/suspensions**

Our review found 25 studies looking at the link between ethnic matching and disciplinary outcomes. There were no 4□ studies, and one 3□ study with mixed results (Table 3).

Table 3. Quality of studies and discipline outcomes

	Positive	Mixed or unclear	Negative or neutral
4□	-	-	-
3□	-	1	-
2□	10	5	4
1□	1	1	3

#### *Studies suggesting a beneficial link*

##### 2□ studies

Ten 2□-rated studies suggested benefits from congruence for reducing disciplinary actions or severity for ethnic minority students. Unlike attendance, this cannot be presumed to be an unalloyed benefit for the system in every case. It depends on whether a disciplinary action was or would have been justified. Here we will assume that a reduction in disciplinary referrals represents a fairer system.

Blake et al. (2016) looked at 928,940 students in three Texas 7th-grade public school cohorts 2000-03, over five years, with unspecified attrition. The more similar a school's faculty and students were ethnically, the less likelihood there was of punishment of Black and Hispanic students, even after controlling for socio-economic status, academic history, and school-level poverty.

Shirrell et al. (2023) drew data from administrative personnel and student outcome files provided by the NYCDOE, spanning 10 academic years (2007/08 to 2016/17). For students, the files include all students in non-Charter schools in grades 4 to 8; for 5 of the 10 years (2012/13 to 2016/17). Greater proportions of ethnically matched teachers decreases the likelihood of suspension for Black and Latinx students. The magnitudes of these effects are small but suggest that diversifying the teacher workforce decreased exclusionary discipline in urban districts.

Accavitti and Williford (2022) looked at 147 teachers and 1,195 children from state, federal, and privately-funded preschool programs within South Eastern US. 76% of families agreed for their children to participate in the larger study. Black children were rated as demonstrating more frequent symptoms of inattention than White children across teachers. Teacher-child racial mismatch was associated with higher ratings of inattention and defiance for Black children by White teachers. The proportion of same-race peers in a child's classroom was negatively associated with teacher ratings of inattention and hyperactivity/impulsivity.

Using a grade 1 to 12 student administrative dataset from North Carolina, 2007-12, with 2,236,678 student-year observations, Lindsay and Hart (2017) found that exposure to same-race teachers was associated with reduced rates of exclusionary discipline for Black students. This was true for all grades,

in all school types, regardless of free and reduced-price lunch. There was some evidence that this was due to teachers' differential use of discretion. A follow-up study looked at the spillover effects of Black teachers on White teachers' behaviour (Gershenson et al. 2023). Having a Black same-grade colleague reduced the suspension rates of White teachers for Black students. This was persistent over time and largest for novice teachers. This is a clear argument for diversity in the teaching workforce.

Some of the same authors used longitudinal administrative data on all primary school students and teachers in North Carolina public schools, 2006-10 (1.5 to 2 million observations, attrition not specified). Student:teacher racial mismatch was linked to the chances of being suspended at least once (Holt and Gershenson 2017). The effect sizes are small.

Hughes et al. (2020) used data from a sample of 559 Florida middle and high schools (attrition not clear). Greater racial and ethnic diversity among district teaching faculties was associated with a reduction in Black and Latino suspension disparities compared to White students.

Downey and Pribesh (2004) focused on 2,707 black and 10,282 white students who were matched with either a Black or White teacher in 1998. The analysis controlled for potential confounding variables, such as students' socioeconomic background and cognitive test scores. Attrition is not known. Black students were consistently rated by teachers as exhibiting poorer classroom behaviour compared to White students. There is a small benefit from racial matching for ratings of behaviour by teachers.

Lindsay et al. (2021) used administrative data from state education agencies - accessed via the Texas Education Research Center, containing records for students who attended grades 3 to 9, in 5,613 schools, 1995-2018. Student-teacher race matches in earlier grades were linked to a reduction in the number of disciplinary events recorded.

Hayes et al. (2023) used administrative data from a large, demographically diverse urban school district in California for 2016-19, including all disciplinary referrals. There were 719,096 teacher/student/year observations, in middle and high schools. Around 11% of students received at least one referral, but Black students were six times as likely to be referred as White students and twice as likely as Hispanic students. Black students were somewhat less likely to receive a referral from a Black teacher (3 percentage points), than White students. This was common to all reasons for referrals, except for drug use/possession, perhaps because this is a more objectively observable infraction type. Results for suspensions are similar to referrals. The effect is greater in schools in disadvantaged areas, and in middle than high schools, perhaps again because the infractions are more subjective at that age.

### 1□ studies

Redding (2022) conducted an analysis of 18,170 cases from ELCS, assessing student grade retention controlling for many factors including student teacher racial match. There is large amount of missing data reported, and the authors simply excluded these cases from the analysis. A school principal ethnic match with students was linked to reduced likelihood of Black student retention.

### *Studies with mixed or unclear results*

Not all studies were positive. Some had quite mixed results.

### 3□ studies

Blake et al. (2022) explored whether school discipline sanctions issued to female students were influenced by their racial background and the stage of puberty, and whether these relationships were moderated by the teacher's racial/ethnic background and discipline philosophy. The experimental design used mock discipline files, which simulated real student profiles and disciplinary scenarios. These files included manipulated photographs of adolescent models (with pixelated faces for anonymity) to represent different races and pubertal development stages. The 515 US educator's discipline decisions were influenced by their racial/ethnic background and discipline philosophy. There were no differences in discipline severity based on the student's race or developmental status alone.

### 2□ studies

A study from Texas (Edwards et al. 2023) used state-wide administrative data representing over 24

million unique student-year observations (unspecified attrition). Black students had the highest rate of in-school suspension. A racial match between student and principal reduced the likelihood of Black students receiving suspensions, but only in urban schools.

Morgan and Hu (2023) used a sample of 18,170 US elementary students, and observed mostly null effects for student-teacher racial or ethnic matching across 12 measures – like social-emotional behaviour, executive functioning, and the likelihood of receiving gifted or special education services. But for Black students, matching led to fewer internalising problem behaviours. There was substantial attrition over time from kindergarten to fifth grade.

Cheng (2019) used administrative data from public schools in Wisconsin 2002-12, including 20,048 observations across 2,007 schools (attrition unspecified). A small increase in the representation of Black teachers was associated with lower suspension rates among Black students at high school only. Teacher racial composition seemed to be unrelated to middle school expulsion rates. In all phases, the exclusion rates of White students were unrelated to teacher racial composition.

Turner (2021) examined a matched, administrative dataset with records for all North Carolina public school attendees between 2008/09 and 2017/18. Black third through fifth graders who had a Black NCPK teacher had slightly higher odds of being disciplined than those who did not (with a small effect size). However, the percentage of Black teachers in a school was associated with lower odds of discipline for Black children. This is a similar negative to above - mix matters, but congruence can actually “harm”.

Edwards et al. (2021) examined the extent to which student-principal ethnic matching was associated with in-school suspension patterns for historically marginalised groups. Data came from the Texas Education Research Center (ERC), including 25 million students and whether they received a suspension 2014-18. Black students were much more likely to be suspended, even after accounting for student and school characteristics. However, where Black students had a Black school leader they were less likely to be suspended than a White student in a school with a White leader. For Latinx and Asian students, no difference was observed.

### 1□ studies

Liiv (2015) looked at disciplinary 922 referral forms for school year 2013-14 in a large, urban middle school in the northeast US. There were 50 referrals for defiance, insubordination, and disrespect. In general and on average, annual referrals were higher when student and teacher differed by race and by gender, and lower when student and teacher had different experiences with poverty. 1□

*Studies suggesting no benefit from ethnic matching.*

There were no 3□ or 4□ studies with negative results on this theme.

### 2□ studies

Kinsler (2011) used discipline data for grades 6 to 9, from the 2001 academic year in North Carolina, with approximately 1,000 schools serving 500,000 students. 24 districts were left out, and 84% of cases were matched in the remainder. Despite the overall disparities in discipline outcomes between Black and White students, the study does not find differences in treatment based on the racial composition of teachers or principals.

Capers (2019) analysed the National Education Survey of US Public Schools, focusing on the 1,800 largest school districts, 2000/01, 2003/04, and 2008/09 (6,000 cases). There was an average response rate of 95% across three years, but around a quarter of the cases were missing key variables. Black students have higher odds of suspension in school districts with less residential segregation and higher Black to White income ratios. The presence of White teachers is associated with a decrease in the odds of suspension for Black students but an increase in the odds for Latino students. All students experience higher odds of suspension in desegregated districts compared to segregated districts, with Black and Latino students disciplined at higher rates in desegregated districts. The study suggests that the racial balance of a district influences discipline policies and teachers' implementation decisions. Having culturally congruent teachers can reduce the racial discipline gap, but the impact is conditioned by the



broader racial context of the school district and its norms.

Cullinan and Kauffman (2005) included 769 students identified by their school systems as meeting criteria for emotional disturbance, along with the teachers of these students. The students were subdivided by race (African American and European American) and grade level (elementary, middle, and high school). The study analysed the emotional and behaviour ratings provided by Black and White teachers to examine potential differences in perceptions of students based on the race of the student and teacher. There was no impact of matching.

Weathers (2023) included 256 teachers and 6,549 students across 12 schools, based on administrative records from a large, urban California school district, for 2014/15 grade 6, 7, and 8 students and their teachers. Asian and Black teachers were actually more likely to rate their same-race students “at-risk” for internalising behaviour compared with how the same Asian and Black students would be rated by White teachers.

#### 1□ studies

Downer et al. (2016) used over 2,900 pre-K children in 11 US states to test whether children are more likely to be perceived to be better adjusted by same-race teacher, and whether they make greater improvements academically when taught by same-race teacher. Data was taken from the National Center for Early Development and Learning Multi-State Study of Pre-Kindergarten and the State-Wide Early Education Programs study. One classroom and four children from each class was selected randomly for participation. The sample was 2,982 children and 701 teachers, but only 1,116 children were included in the analysis and only 340 had all child, family and classroom characteristics recorded. For social and behavioural outcomes, there was no difference in outcomes whether teachers were matched or not.

Sullivan et al. (2013) used student and school data from a diverse urban school district in Wisconsin, but the sample size is unclear. There was no evidence that racial match was a predictor of suspensions.

Marcucci (2020) conducted a teacher (vignette based) survey of disciplinary actions applied on students. 287 of 337 teachers’ responses were retained in the analysis. Only 24 teachers were of minority race. On average teachers were more likely to send a Black student to a refocus area of the classroom (typically called exclusion or isolation) than a White student. White teachers were more likely to ask a White student to sit in the hallway and more likely to write a referral to an administrator than a Black student. Teachers were harsher with White students and the type of punishments were punitive for White students and rehabilitative for Black students.

Overall, the picture is very mixed – much more so than for attendance, for example. It is clear that some ethnic minority groups (principally in the US) are more often disciplined. It is not clear that the ethnic match of the teacher makes a big difference, and may even be negative.

#### **Expectations/aspirations**

Next, the paper considers the ethnic match in terms of teachers’ expectations and assessments of students. Again, there are no 4□ studies on this topic. However, there were three 3□-rated studies suggesting that ethnic match (or lack of it) matters (Table 4).

Table 4. Quality of studies and expectation outcomes

	Positive	Mixed or unclear	Negative or neutral
4□	-	-	-
3□	3	-	-
2□	10	3	1
1□	4	-	1

*Positive outcomes*3□ studies

Teachers were randomly assigned to classes in 2010, within the US Measures of Effective Teaching project involving 5,579 4<sup>th</sup> to 8<sup>th</sup> grade students (Kurylo 2021). Student-level perceptions of teaching practices were taken from the Student Perception Survey. Black students reported that Black teachers had higher expectations for their performance than White teachers in English (effect size 0.24) and maths (0.33). Attrition figures not known.

Using the same dataset as above, Kurylo (2022) used data on 2,086 teachers from 310 schools, but only 1,559 randomly assigned teachers from 284 schools continued in the study. As above, it found improved communication for Black students taught by Black teachers.

Quinn (2020) conducted an experiment of 1,544 teachers' assessment, giving them student's writing and asking them to assess the work knowing the students' name. The findings shows that White female teachers gave considerably lower marks to the work labelled as being of minority student identity.

2□ studies

Harbatkin (2021) used 3.2 million student-course observations, with 876,534 unique student records, 25,465 unique teachers, from 2,082 schools. It comes from administrative data, 2014-17, on middle and high school students across all North Carolina public schools. Students received slightly higher course grades when they were paired with same-race teachers - a course grade increase of 0.015 to 0.022 grade points, conditional on school and teacher covariates. These effects represent 1.3 to 2 percent of a standard deviation on the course grade variable. The race match effects for Black students were consistently higher (ES 0.032 to 0.037). The differences are negligible for other matches.

Cleveland and Scherer (2024) combined survey data on social-emotional development for 15,034 students with state administrative records for grade 5 to 8 students attending Boston's public Charter middle schools 2015-19. Around 20% of cases were missing. There were positive results for social-emotional outcomes, growth mindset, grit, and social awareness when students matched their teacher's race and gender.

Rasheed et al. (2020) drew data from a professional learning study involving 224 teachers and 5,200 children in 36 New York City elementary schools. They examined effects of matching on teacher-reported child outcomes in a racially/ethnically diverse sample of teachers and children. Data were drawn from a professional learning study involving 224 teachers and 5,200 children in 36 New York City elementary schools. Teacher-child race/ethnicity matching was associated with higher child engagement in learning, motivation, social skills. Classroom diversity moderated matching such that teacher-child mismatch was related to lower engagement, motivation, social skills, maths and reading scores in low-diversity classrooms, but not in high-diversity classrooms.

Dee (2005) analysed 42,648 observations from NELS 1988. Attrition is not known. Students performed worse on subject tests when the teacher for that subject viewed them negatively. They were also less likely to take Advanced Placement courses and more likely to drop out of high school. Having a teacher who did not share a student's racial/ethnic designation increases the odds of the student being seen as disruptive, inattentive, and rarely completing homework. The effects of race, ethnicity, and gender between students and teachers had impacts on teacher perceptions of student performance, particularly among students of low socioeconomic status and those in Southern US.

Grissom and Redding (2016) used the initial sample in the ECLS-K dataset, including 21,260 kindergarteners 1998-99. The analysis was restricted to public schools with gifted programmes in either reading or maths. Missing data reduced the available sample sizes as the ECLS-K data collection progressed, with various reasons for missing data such as parental refusal to participate, missing assessment data, and incomplete data from teachers or school personnel. African American and Hispanic elementary students were assigned to gifted programmes at disproportionately lower rates compared to White or Asian students. Factors beyond student performance or ability, such as the school and the characteristics of the classroom (including the race of the teacher), partially explain students' probabilities of being assigned to gifted programmes.

Grissom et al. (2020) used data from 465,508 students in Miami-Dade County Public Schools, and high school maths courses. White teachers were more common in higher level maths courses. Having a congruent maths teacher was associated with an increase of about 0.4 percentage points in the probability of advancing in maths, and taking a further course. The impact of race congruence was greatest for Black teachers and students (2 percentage points), and there was little or no impact for other ethnic groups. Students' maths course grades were higher with congruent teachers. This could be because students achieve better with congruent teachers, or they were evaluated more positively by those teachers.

Gershenson et al. (2016) used the National Education Longitudinal Study 1988 which tracked a nationally representative sample of 16,810 US students over time. Attrition not known. Non-Black teachers had lower educational expectations for Black students compared to Black teachers. This disparity suggests that student-teacher demographic match plays a significant role in shaping teachers' perceptions of students' potential educational attainment.

Hart (2020) considered Black high school students (Grades 9-12) in traditional high schools in North Carolina. The main analytic sample included over 1.5 million student-course enrolments for Black students taught by teachers of all races during the years 2007 to 2013. Attrition not known. The presence of at least one Black teacher in the advanced track was associated with a significantly higher likelihood of Black students enrolling in advanced-track versions of courses. But once enrolled Black students were no more likely to pass courses taught by Black teachers than non-Black teachers. 3□

Ehrenberg et al. (1995) used data from around 10,000 students in the National Educational Longitudinal Study of 1988 (NELS). They found that the match between teachers' race, gender, and ethnicity and those of their students had little association with how much the students learned, but in several instances it seems to have been a significant determinant of teachers' subjective evaluations of their students.

Brown (2018) included a sample of 7,265 students in 508 classrooms taught by 98 teachers in 23 schools across southern Arkansas, focussing on student perceptions of teacher effectiveness and the student-teacher relationship. Attrition not known. The presence of a same-race teacher was associated with more positive student perceptions of the teacher's classroom environment and expectations and rigor. The impact on the student-teacher relationship perception was more pronounced among White students than Black students.

### 1□ studies

Fanslau (2022) included 40 primary school teachers from K-5 across 9 schools in a school district in New Jersey, US. Response rate was not stated. The results indicated that teachers' race was not significant predictor of teacher's referral of Black students. Teachers who received training in multicultural education, inclusive education, and special education, were less likely to refer Black students for special education.

Banerjee (2019) investigated the relationship between student-teacher racial matching and student placement in reading ability groups in US kindergarten and first grades. Latino/a first graders were more likely to be placed in higher ability groups when assigned to Latino/a teachers.

Darling-Aduana (2021) included data from a large urban school district, but the total number of students and lessons observed was not explicitly stated. In a specific analysis focusing on students identified as Hispanic, the study mentions 531 students. Attrition not known. The study assesses student achievement through the first score students earn on the end-of-lesson quiz. Being taught by a same-race instructor was associated with increased active time among students identified as Black.

Doyle (2012) used 477 K-12 public school music educators from 17 US metropolitan areas (16% response rate). Student-teacher race/ethnicity match and SES match were found to influence teachers' attitudes. Teachers with higher SES than their students held more negative prejudice than those who matched or had a lower childhood SES than that of their students. Teachers who matched race/ethnicity with the majority of the students in their schools held less negative prejudice than those who did not match. Similarly, teachers who matched race/ethnicity with their students had higher expectations for

them.

#### *Studies with mixed results.*

Overall, there is a considerable body of evidence suggesting that expectations are related to racial congruence. However, there are also a few studies with mixed or negative findings.

#### 2□ studies

Takei and Shouse (2008) used data on 6,355 8th-grade students across 410 public schools from the National Education Longitudinal Study 1988 Base Year Survey, focusing on White and Black teachers' assessments of their White and Black students' classroom work habits. Attrition not known. White teachers rated their Black students about 9% of a standard deviation lower than their White students. Black maths and science teachers also rated their Black students substantially lower compared to Black English and social studies teachers. The study unexpectedly found that Black science and maths teachers were more likely than White teachers to rate their Black students' work behaviour less favourably, contrary to previous studies. Possible explanations include the assignment of more behaviourally "difficult" Black students to Black teachers' classes or higher expectations from Black teachers for Black students.

Wright et al. (2017) used data on 9,140 students and 2,420 teachers from the Early Childhood Longitudinal Study–Kindergarten Class of 2010–2011. Attrition not known. Having a teacher of the same race was unrelated to teachers' ratings of children's internalising problem behaviour, interpersonal skills, approaches to learning, and self-control. However, students whose teachers' race/ethnicity matched their own had more favourable ratings of externalising behaviour.

Fox (2015) used a nationally representative dataset from the National Center for Educational Statistics for 10<sup>th</sup> grade students, 2002–12. 6,321 students have responses from both maths and English teachers for the question related to how far the teacher expects the student to go in school, and 5,736 have responses from both teachers for the question regarding whether the teacher has recommended the student for advanced classes. The analyses controlled for student and teacher characteristics (teacher experience, student attainment and type of teacher certification). There was no overall evidence that having same-race teacher increases the likelihood of being expected to complete more schooling or being recommended for advanced courses. But there is a link for Black students and same-race teacher expectations for postsecondary enrolment and attainment.

#### *Studies showing no link*

#### 2□ study

Reed (2020) recruited 101 (47% dropout) African American and European American teachers through email invitations to participate in an online study. They were presented with a vignette which manipulated the name and race of the boy described, to examine the impact of racial bias on teachers' ratings of problem behaviour, referrals for special education, perceptions of home life, and expectations of academic abilities. Teachers did not exhibit racial bias in any of these judgements, whether the teacher was of the same race or not.

#### 1□ study

McGrady and Reynolds (2013) looked at 9,000 high school sophomores transitioning from high school to the workforce, college, or other avenue (31% attrition). Among students with White teachers, Asian students were usually viewed more positively than White students, while Black students were perceived more negatively. White teachers' perceptions of Hispanic students did not typically differ from those of White students.

### **Relationships**

The final theme covered in this paper is relationships between staff and students. There are no 3□ or 4□ pieces on this (Table 5).

Table 5. Quality of studies and relationships outcomes

	Positive	Mixed or unclear	Negative or neutral
4□	-	-	-
3□	-	-	-
2□	4	-	1
1□	2	2	-

*Studies showing a link*2□ studies

Using data from 360,653 students in 414 high schools, La Salle et al. (2020) found that when the discrepancy between student-teacher racial composition in a school was larger, White students (as well as Asian, Latinx, and Other students) reported higher perceptions of cultural acceptance. However, for African American students, their perception of cultural acceptance did not change when there were more White teachers in proportion to White students at school. In addition, African American, Latinx, Asian students reported higher cultural acceptance when there were more racial minority peers at their schools. Conversely, as the racial minority student population at school increased, White students' perceptions of cultural acceptance did not change. African American and Asian students reported slightly higher connectedness when there were more racial minority students at school.

Childs (2023) ran a cross-sectional survey of 834 participants that included measures of teacher racial bias (both implicit and explicit), teacher-student racial mismatch, and the quality of student-teacher relationships. Teacher characteristics, such as racial match, were significant predictors of positive student-teacher relationships. Teachers with the same racial-ethnic background reported more positive relationships with their students.

Bates and Glick (2013) investigated the association between teacher-student racial/ethnic matching and teacher assessments of children's behaviour, specifically focusing on externalising behaviour - such as arguing, fighting, getting angry, acting impulsively, and disturbing ongoing activities. They used the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K) of 1998/99, initially 21,260 children. Attrition not known. Black students were more likely to be rated as exhibiting externalising or problematic behaviour, while Asian students were perceived as exhibiting fewer of these behaviours. Notably, Black children received more favourable ratings from Black teachers, indicating a potential counterbalance to negative stereotypes when there was racial congruence between teacher and student.

1□-rated

Garner et al. (2021) studied 303 pre-schoolers and their racially diverse teachers (24 classroom teachers and 16 assistant teachers) from five pre-schools in the mid-Atlantic region of the US. School readiness was assessed for only 83 of the children as some schools could not complete the assessment at the end of the school year. This would have skewed the results. Teacher-student racial congruence and child race were positively related to teacher-child closeness.

Bathey et al. (2018) looked at classrooms' video recordings for 25 teachers. Racially matched teacher-student pairs experienced higher quality relational interactions compared to mismatched pairs. There was an increased frequency of negative relational interactions in classrooms with racial mismatch, particularly where White teachers taught predominantly Black students.

Stephens (2019) used a sample of 1,851 fourth-grade students from the National Center for Teacher Effectiveness, 2010-13. When a student and their teacher were ethnically/racially congruent, there was more conflict.

*Studies with mixed results*

### 1□ studies

A sample of 447 from kindergarten and grade 1 in North Carolina reported more positive relationships with teachers when assigned to a teacher of their same race/ethnicity, but teachers did not report the same (Bratsch-Hines et al. 2023).

Mabin (2016) looked at 3,359 students in two year groups, and 207 teachers. White students perceived the best level of student-teacher connection with White teachers, while Black, Hispanic, and Minority students perceived a lower student-teacher connection with White teachers. Black students perceived a stronger student-teacher connection with non-White teachers, and the strongest connection when matched with a Black teacher. Minority students perceived the lowest student-teacher connection when matched with a Minority teacher (not Black or Hispanic).

### *Studies with negative results*

### 2□ studies

Pigott and Cowen (2000) included 226 African American and 219 White children, with 26 African American and 44 White teachers, in kindergarten to fifth-grade in 70 classrooms in 24 racially mixed urban schools. There was non-response and dropout of around 10%. African American children were consistently rated by teachers to have more serious school adjustment problems, fewer competencies, more negatively stereotypic personality qualities, and poorer educational prognoses compared to White children. But there was no difference in teacher ratings based on teacher-student racial congruence. African American teachers tended to judge all pupils, regardless of race, to have fewer problems, more competencies, and better educational futures compared to White teachers.

## **Conclusion**

### *Summary*

Following a structured search of a range of databases, we found 62 distinct reports available in English that considered wider processes and outcomes related to the ethnic match of staff and students in schools. These reports were from a range of countries, but were dominated by work based in the US. This finding is not solely due to the choice of language, because no relevant studies were found from Australia or New Zealand, for example. The disparity is more likely due to the availability of suitable datasets, and a particular concern over ethnic disproportionality and segregation in the US school system.

All six studies with school attendance as a headline outcome reported a positive link between attendance and the ethnic match of teachers and students. This did not generally apply to White students, who were unaffected, but did apply to Latinx and especially to Black students in the US. Only one study was rated 3□ (based on the Tennessee Star class size project from decades ago). Nevertheless, the conclusion at present has to be that racial congruence is positively linked to school attendance. School attendance has many benefits.

Similarly, the body of evidence on expectations of and attitudes to students based on an ethnic match with teachers is overwhelmingly positive, including for the three 3□-rated studies. Only two weak studies are negative. Expectations can then turn into enrolment or participation in later educational courses, or being more likely to be attached to a gifted programme. So, again, there are benefits from a better ethnic match of teachers and students, and no clear downside.

On the other hand, using disciplinary decisions and school suspensions as an outcome, the evidence is mixed overall, with over half of the studies in this review suggesting mixed or negative results. The mixed results included the only 3□ study on this theme. But none of the studies suggested any harm – the negative results were only that ethnic matching made no difference.

There is, so far, little good evidence on racial congruence and staff:student relationships, other than as covered by the other themes. The studies are evenly divided as to whether relationships are better, unrelated, or worse when the ethnicity of teacher and student match.

### *Implications for further research*

The review found very few trials or similar causal designs on the value or otherwise of racial congruence between staff and students in schools. The few trials that exist looked at ethnic matching as a side issue rather than as the main intervention (like randomising teachers to classes to assess the impact of class size). Most of the best studies in this area were re-analyses of existing large-scale datasets. If the issues involved are considered important, then it should be possible to fund and conduct a series of studies with stronger experimental designs.

It would be useful to have more, and higher quality, studies from countries other than the US. It may be that other countries do not promote such work because there are actually fewer problems with the ethnic mix in schools, or it may be because concerns have not been raised to the same extent. It would be useful to know which, if either, of these explanations is true. That could be a useful programme of work.

### *Implications for policy and practice*

In terms of discipline, and relationships in school, by themselves there is little urgency to improve the ethnic congruence of students and staff. However, there is also no reason not to. In a developed education system, it makes sense for schools to take an ethnic mix of students, representing the population in the wider area around the school. Segregation of students between schools can create a range of damage to education, life chances and society (Gorard et al. 2022). On the other hand, diversity of the student body is an attractor when recruiting and retaining ethnic minority staff (Gorard et al. 2024c). If schools have suitably diverse intakes then they should also employ a suitably diverse staff. And the evidence from this review suggests promise from this matching or role modelling for making expectations of students less racially biased, and for increasing attendance for ethnic minority students.

However, several studies suggest that it is the diversity of the teaching staff that is at least as relevant as an exact match between the ethnicity of a student and the teacher who teaches them. In some areas of England, such as the North East, there are few ethnic minority students, and it would not be feasible to assure that all are taught by teacher of the same or similar ethnicity. What is more important therefore is to improve the diversity of staff so that at least ethnic minority students have congruent or similar teachers on the staff roll. Our next review takes this idea up further, and concerns the most promising approaches to recruiting and retaining more ethnic minority teachers in areas where they are under-represented.

There will still be situations in which ethnic minority students are unlikely to ever encounter a teacher in school of the same ethnicity. Several of the studies in this review suggest promise from training all teachers to some extent in multicultural, inclusive, and special education. This was found to have a similar impact to racial congruence, is feasible for a national school system, and is an area where teachers currently report feeling under-prepared (Gorard et al. 2023).

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## Appendix

Note that these search terms were for wider issues like discipline, and also for attainment outcomes which are not covered in this paper.

The search terms used for each database

Outlet	Databases	Search String	Resulting Items
Proquest (Durham Library) <a href="#">Search Results - ProQuest</a>	Social Sciences Premium Collection; Education Collection; ProQuest Dissertations & Theses Global; Education Database; ERIC; Sociology Collection; ProQuest One Literature; Sociological Abstracts; International Bibliography of the Social Sciences (IBSS); Social Science Database; Sociology Database; Literature Online; Education Magazine Archive	abstract(same race teacher OR own race teacher OR teacher like me OR student-teacher matching OR teacher-child ethnic match OR teacher-child racial match OR teacher ethnic disproportionality OR teacher racial disproportionality OR teacher ethnicity mismatch OR teacher race mismatch OR student-teacher race congruence OR student-teacher ethnic congruence) AND abstract(Attainment OR achievement OR performance OR attain OR score OR Academic OR literacy OR read OR numeracy OR math OR cognitive OR cognition OR learn OR SAT OR Standardi test OR KS OR key stage assess OR GCSE OR GCE A-level OR Progress 8 OR National exam OR test OR assessment OR Grade retent OR GPA OR Grade point average OR Graduate rate OR Pass OR fail OR Result OR Selection OR streaming OR Progress OR Report card) AND abstract(non-cognitive OR attitude OR behavior OR emotional OR emotive OR social emotional OR Wider outcome OR extracurricular OR Character OR value OR trait OR disposition OR Ability OR skill OR Feeling OR perception OR perceive OR experience OR dropout OR exclusion OR mental health OR emotional health OR mental)	2,158 results; 1,777 after merging duplication items

<p>EBSCO host st (Durham Library)  <u>Result List: AB ( same race teacher OR own race teacher OR teacher like me .... EBSCO host</u></p>	<p>OpenDissertations;  British Education Index (BEI);  Child Development and Adolescent Studies;  eBook Collection; Education Abstracts (H.W. Wilson);  Educational Administration Abstracts;  ERIC; MLA International Bibliography; APA PsycArticles;  APA PsycInfo.</p>	<p>same race teacher OR own race teacher OR teacher like me OR student-teacher matching OR teacher-child ethnic match OR teacher-child racial match OR teacher ethnic disproportionality OR teacher racial disproportionality OR teacher ethnicity mismatch OR teacher race mismatch OR student-teacher race congruence OR student-teacher ethnic congruence AB Abstract</p> <p>AND</p> <p>Attainment OR achievement OR performance OR attain□ OR score□ OR Academic OR literacy OR read□ OR numeracy OR math□ OR cognitive OR cognition OR learn□ OR SAT OR Standardi□ test OR KS OR key stage assess□ OR GCSE OR GCE A-level OR Progress 8 OR National exam□ OR test OR assessment OR Grade retent□ OR GPA OR Grade point average OR Graduate□ rate OR Pass OR fail OR Result□ OR Selection OR streaming OR Progress OR Report card AB Abstract</p> <p>AND</p> <p>non-cognitive OR attitude OR behavior OR emotional□ OR emotive OR social emotional OR Wider outcome OR extracurricular OR Character OR value□ OR trait OR disposition OR Ability OR skill□ OR Feeling□ OR perception OR perceive□ OR experience OR dropout OR exclusion OR mental health OR emotional health OR mental□</p>	<p>152 results; 92 after removing duplication items</p>
<p>Web of Science (Durham library)</p>	<p>Web of Science Core Collection</p>	<p>(AB=("same race teacher" OR "own race teacher" OR "teacher like me" OR "student-teacher matching" OR "teacher-child ethnic match" OR "teacher-child racial match" OR "teacher ethnic disproportionality" OR "teacher racial disproportionality" OR "teacher ethnicity mismatch" OR "teacher race mismatch" OR "student-teacher race congruence" OR "student-teacher ethnic congruence")) AND (AB=("Attainment" OR "achievement" OR "performance" OR "attain□" OR "score□" OR "Academic" OR "literacy" OR "read□" OR "numeracy" OR "math□" OR "cognitive" OR "cognition" OR "learn□" OR "SAT" OR "Standardi□ test" OR "KS" OR "key stage assess□" OR "GCSE" OR "GCE A-level" OR "Progress 8" OR "National exam□" OR "test" OR "assessment" OR "Grade retent□" OR "GPA" OR "Grade point average" OR "Graduate□ rate" OR "Pass" OR "fail" OR "Result□" OR "Selection" OR "streaming" OR</p>	<p>8 results</p>

		"Progress" OR "Report card")) AND (AB=("non-cognitive" OR "attitude" OR "behavior" OR "emotional" OR "emotive" OR "social emotional" OR "Wider outcome" OR "extracurricular" OR "Character" OR "value" OR "trait" OR "disposition" OR "Ability" OR "skill" OR "Feeling" OR "perception" OR "perceive" OR "experience" OR "dropout" OR "exclusion" OR "mental health" OR "emotional health" OR "mental"))	
Scopus		(ABS("same race teacher" OR "own race teacher" OR "teacher like me" OR "student-teacher matching" OR "teacher-child ethnic match" OR "teacher-child racial match" OR "teacher ethnic disproportionality" OR "teacher racial disproportionality" OR "teacher ethnicity mismatch" OR "teacher race mismatch" OR "student-teacher race congruence" OR "student-teacher ethnic congruence")) AND (ABS("Attainment" OR "achievement" OR "performance" OR "attain" OR "score" OR "Academic" OR "literacy" OR "read" OR "numeracy" OR "math" OR "cognitive" OR "cognition" OR "learn" OR "SAT" OR "Standardi test" OR "KS" OR "key stage assess" OR "GCSE" OR "GCE A-level" OR "Progress 8" OR "National exam" OR "test" OR "assessment" OR "Grade retention" OR "GPA" OR "Grade point average" OR "Graduate rate" OR "Pass" OR "fail" OR "Result" OR "Selection" OR "streaming" OR "Progress" OR "Report card")) AND (ABS("non-cognitive" OR "attitude" OR "behavior" OR "emotional" OR "emotive" OR "social emotional" OR "Wider outcome" OR "extracurricular" OR "Character" OR "value" OR "trait" OR "disposition" OR "Ability" OR "skill" OR "Feeling" OR "perception" OR "perceive" OR "experience" OR "dropout" OR "exclusion" OR "mental health" OR "emotional health" OR "mental"))	13 results
	Australian Education Index	abstract(same race teacher OR own race teacher OR teacher like me OR student-teacher matching OR teacher-child ethnic match OR teacher-child racial match OR teacher ethnic disproportionality OR teacher racial disproportionality OR teacher ethnicity mismatch OR teacher race mismatch OR student-teacher race congruence OR student-teacher ethnic congruence) AND abstract(Attainment OR achievement OR performance OR attain OR score OR Academic OR literacy OR read OR numeracy OR math OR cognitive OR cognition OR learn OR SAT OR Standardi test OR KS OR key stage assess OR GCSE OR GCE A-level OR Progress 8 OR National exam OR test OR assessment OR Grade retent OR GPA OR Grade	40 results

		<p>point average OR Graduate <input type="checkbox"/> rate OR Pass OR fail OR Result <input type="checkbox"/> OR Selection OR streaming OR Progress OR Report card) AND abstract(non-cognitive OR attitude OR behavior OR emotional <input type="checkbox"/> OR emotive OR social emotional OR Wider outcome OR extracurricular OR Character OR value <input type="checkbox"/> OR trait OR disposition OR Ability OR skill <input type="checkbox"/> OR Feeling <input type="checkbox"/> OR perception OR perceive <input type="checkbox"/> OR experience OR dropout OR exclusion OR mental health OR emotional health OR mental <input type="checkbox"/>)</p>	
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