Role of Teacher Expectation in Educational Inequality: A Systematic Review of Pathways from Student Background to Outcome

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Abstract—**Teacher Expectation (TE) plays a pivotal role in the field of educational equality. However, review studies considering the pathway of the influence of teachers' expectations on educational inequality are still limited. This systematic review synthesized 40 studies to explore how Students' Background (SB) factors, including race, gender, Socioeconomic Status (SES), and ethnicity, shape TE, which in turn influence Student Outcome (SO) across academic, psychological, and behavioral domains. Employing a systematic analysis framework, the result revealed that marginalized student groups (e.g., low-SES males, ethnic minorities, and Black students) face disproportionately lower TE, perpetuating cycles of disadvantage through biased academic tracking, disciplinary referrals, and reduced self-efficacy. Findings also highlighted how TEs reflect and reinforce structural inequities. Moderating factors such as teacher-student demographic alignment, culturally responsive pedagogy, and institutional policies are identified as critical levers for mitigating bias. The study further proposed actionable interventions, including implicit bias training, systemic TE monitoring, and equity-driven school reforms. By integrating fragmented evidence into a cohesive model, this review advanced a global research agenda, emphasizing longitudinal designs, intersectional analyses, and cross-cultural validations to address context-specific inequities. These insights underscore the urgency of reconceptualizing TE as both barriers and catalysts for educational justice, offering a road map for policymakers and educators to disrupt systemic biases and foster inclusive learning environments.**

Keywords—**Teacher Expectation (TE), Students' Background (SB), Student Outcome (SO), educational inequality**

I. INTRODUCTION

Over the past decades, research focusing on TE has been exhaustive. TE refers to the inferences that teachers make about the present and future academic achievement and general classroom behavior of their students [1]. Based on the Pygmalion theory and self-fulfilling prophecy [2], TE is proven to have the effect of positively promoting students to establish higher self-efficacy and get better achievement [3]. From the positive perspective,

TEs primarily take the form of academic expectations, which are prevalent in the literature [4]. These expectations are often neutral or positive, encompassing teacher support [5, 6], academic and emotional support [7], and encouragement [5]. However, TEs can also manifest negatively, including bias, discrimination, and stereotyping [8–11]. Positive teacher-student relationships are associated with better academic performance and engagement [12, 13].

A. Teacher Expectations and Educational Inequalities

However, TE can also intensify educational inequality among students with various social backgrounds, especially for ethnic minority students, Black students (particularly males), and students from low-SES families [4, 14]. Bourdieu's theory of Cultural Capital has provided a structural explanation for class-based disparities in TE: "Teachers' evaluations of student potential are not value-neutral but embedded in the logic of cultural reproduction. When low SES students' habits clash with school norms, TE acts as an invisible medium translating class differences into educational exclusion." [15]. Even without intentional bias, teachers' expectations are profoundly shaped by cultural capital, ultimately positioning schools as "machines for legitimizing social inequality" [15].

B. Relation between TE, SB, and SO

Grounded in previous scholarship, prior studies of teacher expectations concentrated on 3 main types of questions—what, how (how TE is formed based on SB) and why (the significance of TE on SO). For What are TE or perception toward students [16, 17], some attention has been given to TE toward certain social groups like Black students [8, 18], Turkish, Kurdish, and Turkish Cypriot (T/K/TC) girls [10], and rural students [19].

Besides, some research also focused on the question of *whether teachers hold nuanced TE toward students with differential backgrounds* [14, 20], *how is TE formed*? [21], or *what's the effect of SB in the formation of TE*? [22]. Some researchers also explore the question of intervention for modifying biased TE [23]. Another predominant trend of research relevant to TE was to explore the impact of TE on SO [6, 24]. For instance, "*To what extent are beginning-year TE associated with*

gender, minority background, beginning-year achievement in mathematics, and students' self-concept, utility value, and intrinsic value? [25].

While prior studies have mapped the terrain of TE in relation to SB and outcomes, there is still some crucial research content that deserves further exploration. First, although the articles being included discussed a lot about the correlation between SB, TE, and SO, most of them only focused on single angles, such as concentrating on an individual SB, such as Black males [26]. These papers also merely cast insight into either SB shaping TE or TE impacting SO. The main categories of TE and SO were limited in each article, too. Therefore, a comprehensive understanding of the path SB→TE→SO is significant and demanded. Second, apart from SB, TE is affected by other factors as well, which have seldom been attached to great importance in prior studies.

C. Previous Reviews and Purpose of This Study

Regarding the SB→TE pathway, relevant reviews, such as that by Cate and Glock [17], have explored teachers' implicit attitudes towards students from diverse social groups. Meanwhile, Boer *et al.* [27] delved into the impact of teacher expectation interventions on TE and SO. A comprehensive literature review in the TE field, like "A systematic review of the teacher expectation literature over the past 30 years" by Wang, Rubie-Davies, and Meissel [3], has provided a profound introduction to TE research. However, few literature reviews have centered on connecting SB, TE, and SO, exploring the role of TE in the transition from SB to SO. Given that this perspective can offer a more comprehensive understanding of how different SB factors lead to educational inequality, it is crucial to conduct relevant literature reviews.

To fill in some of the overlooked areas in research, the current study integrated the SB→TE→SO pathway, clearly elucidating the role of TE in the transition from SB to SO. Additionally, we synthesized moderators that influence TE, including teacher characteristics, school environment, and students' behavior [21]. The elements mediating the TE→SO relationship were also summarized in our study [10]. Thirdly, the current study further provided a summary of interventions that mitigate the negative impact of TE on the SB→SO pathway [28], presenting practical and effective solutions to the educational inequality issues caused by biased TE.

This systematic review enriched the field through the two key contributions mentioned above and addressed the following research questions:

1) What are the roles of TE in the relationship between SB and SO?

2) What contextual factors (e.g., school climate, teacher training) moderate the relationship between SB, TE, and SO?

II. METHODOLOGY

A. Search Strategy

In November 2024, a comprehensive literature search was carried out in the Web of Science database. An advanced search mode was adopted, and the search formula was constructed as: "AB = (Teacher Expectation* OR teacher belief OR teacher's trust OR teacher's perception OR teacher prejudice* OR teacher discrimination) AND ALL = (students' background* OR student SES* OR student ethnic group* OR student race* OR student socioeconomic status*)". The construction logic of this search formula was to cover multiple aspects related to TE of students through the "AB" field, including expectations themselves and related beliefs, trust, perceptions, prejudices, and discrimination. At the same time, the "ALL" field is used to encompass multiple dimensions of SB, such as Socioeconomic Status (SES), race, and ethnicity, ensuring the comprehensive capture of literature related to the research topic.

B. Inclusion and Exclusion Criteria

Our criteria for inclusion and exclusion are found in Table I. As noted in this table, we were interested in reviewing articles with a focus on the relationship between TE and SB or SO. As for SO, we primarily paid attention to the ethnic group, race, gender, and SES. Studies included should explore the relationship between these SB and differential forms of TE. Therefore, we excluded articles that did not explicitly link TE to SB or SO, as well as those focusing on non-academic populations (e.g., preschool or adult education). Additionally, we limited our search to journal articles published in English.

TABLE I. INCLUSION AND EXCLUSION CRITERIA

Criteria	Inclusion	Exclusion
Research focus	Research focuses on the exploration of relationship between TE & SB or TE & SO	Research didn't focus on relationship between TE & SB or TE & SO
Article type	Journal articles	Non-journal articles
Language	English	Language other than English

C. Screening Process

The complete screening process is demonstrated in Fig. 1. Based on the established search strategy, 645 relevant kinds of literature were initially retrieved. Subsequently, to ensure language consistency, the language was set to English, and after this screening, 630 literatures remained. These 630 pieces of literature were imported into the Zotero literature management tool. The researchers carefully read the abstracts of each literature one by one and screened them according to the Inclusion and Exclusion Criteria. After the abstract screening, 55 studies met the requirements and entered the next stage. After obtaining the full texts of 55 literature, in-depth intensive reading was carried out, and 9 studies were excluded for the full-text unavailable, while 6 were excluded as the research focus didn't align with the aim of this study. Finally, 40 studies were included in this systematic review.
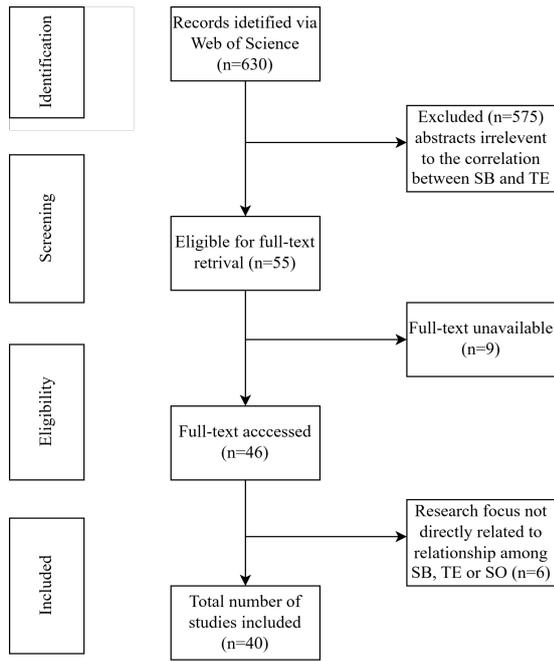
Fig. 1. Screening process.

D. Coding and Analysis

After the data collection, further coding based on the main content was conducted. This coding reported: 1) basic literature information (category of the article; author's name and publication year; research region; research method: qualitative, quantitative, experimental, mixed method); 2) research information (research question, research focus, research conclusions, and variables) [29]. This information was garnered from the journal reference list, which was imported into Endnote.

During the process of coding, we discovered the correlation between SB, TE, and SO. Then, we decided to make it more specific. Therefore, we continued to code the following detailed information through variables, research questions, and conclusions. Analysis was performed on additional contents, including 3) path and 4) student background (ethnic group, race, SES, and gender). During the above coding, we found that apart from the three variables SB, TE, and SO, there are also moderators for SB→TE and TE→SO. Hence, they were recorded, as well (see Result).

What's more, while coding 4), we marked the comparison of TE between differential SB from the same level (e.g., high SES > low SES; girls > boys [20]). By doing so, it was more intuitive and distinct to perform statistics and results. Finally, for 3), we analyzed the perspectives through the relationship between variables of each article, marking them as SB→TE, SB→TE→SO, and TE→SO. We also coded the descriptions of these paths to understand the effect of TE along them better.

III. RESULT

A. Characteristics of Included Studies

Based on our coding of basic literature information, the descriptive statistics (research topic, region and publication years) for the included studies were conducted.

Regarding the research topic classification (Fig. 2), articles related to Ethnic and Race were the most frequently discussed topics, which were higher than Gender and SES. Besides, most studies merely focused on single perspectives, while multidimensional analysis was comparatively scarce.

As is demonstrated in Fig. 2, there are 17 studies exploring topics related to Ethnic, including studies not merely focusing on Ethnic (e.g., E&R, E&G, E&S, E&G&R, and R&G&S). Similarly, Race (19), Gender (11), and SES (11) are no exception, including all studies related to them.
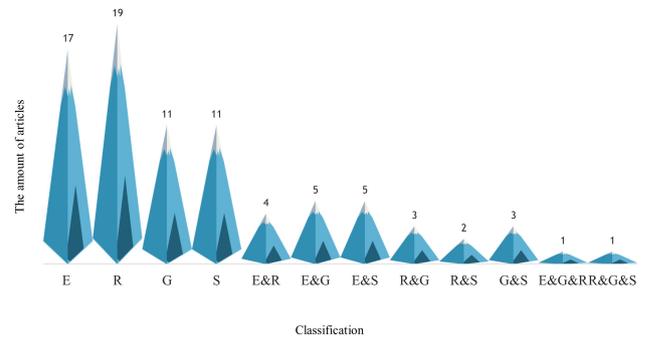

Fig. 2. Research topic of included studies.

Note. Ethnic: E; Race: R; Gender: G; SES: S; Ethnic and Race: E&R; Ethnic and Gender: E&G; Ethnic and SES: E&S; Race and Gender: R&G; Race and SES: R&S; Gender and SES: G&S; Ethnic and Gender and Race: E&G&R; Race and Gender and SES: R&G&S.

In terms of research region (Fig. 3), studies were predominantly produced in European and American areas, especially America (23 articles). Research in other regions was rather limited.
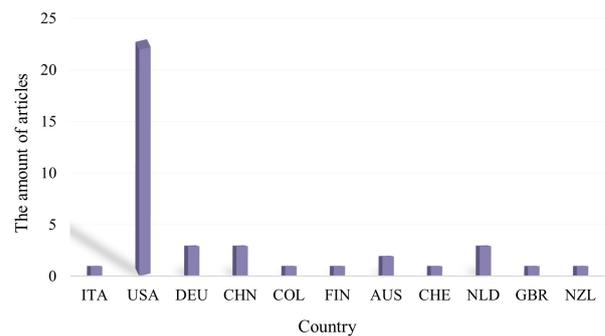

Fig. 3. Research region of included studies.

Note. Australia: AUS; Switzerland: CHE; China: CHN; Colombia: COL; Germany: DEU; Finland: FIN; Great Britain: GBR; Italy: ITA; Netherlands: NLD; New Zealand: NZL; the United State: USA.

Fig. 4 shows the trend of publication amount with the development over the years. The TE related research came across a boost after 2014. Literature published in 2016, 2019, and 2020 was relatively more than other times.
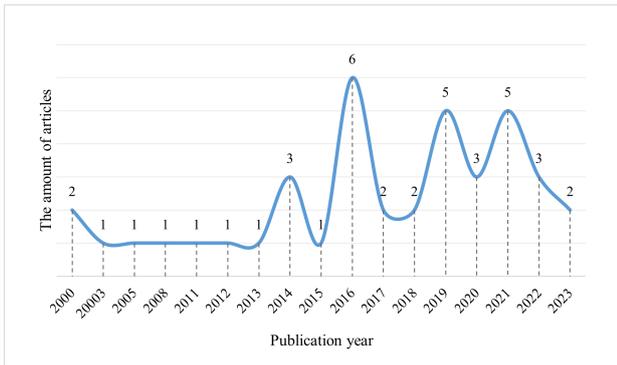
Fig. 4. Publication year of included studies.

B. Role of TE in Educational Inequality

1) Differential TEs for students with various social backgrounds

As Fig. 5 demonstrated, the current investigation categorized Student Backgrounds (SBs) into four primary dimensions: racial classification, ethnic affiliation, gender identity, and SES. Empirical evidence has indicated that educators systematically develop differentiated expectations for learners based on these sociodemographic characteristics. The analyzed literature predominantly employed unidimensional comparative approaches within singular background categories. For instance, comparative analyses have empirically examined differential TEs across racial groups, particularly through systematic comparisons between Black, Asian, Hispanic, and White student populations [21, 30]. However, limited research has systematically investigated cross-categorical comparisons. A notable example is Timmermans, Kuyper and Werf's [31] work, which simultaneously examined the interplay among gender, SES and ethnic background in expectation formation.
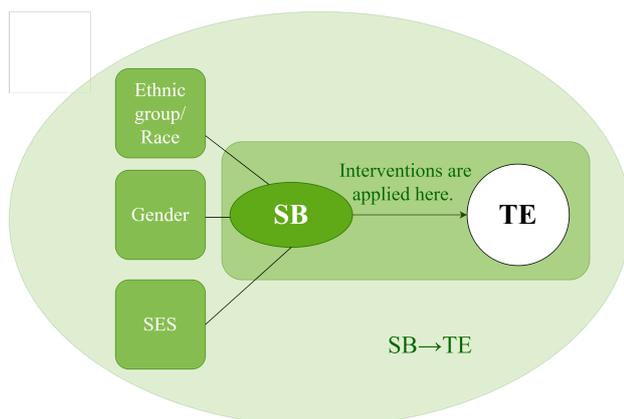

Fig. 5. The path of SB→TE.

Within ethnic affiliation frameworks, TE predominantly favors native students over those with migration backgrounds (SMBs) [16, 20, 23, 32]. Empirical evidence further identifies specific ethnic subgroups receiving systematically lower expectations. Timmermans, Kuyper, and Werf [31] demonstrated that Dutch students from low socioeconomic backgrounds, alongside their Turkish and Moroccan counterparts,

experienced heightened expectation biases. Educators particularly underestimated the academic potential of Turkish, Kurdish, and Turkish Cypriot (T/K/TC) female students relative to their peers [10]. Holder and Kessels [33] specifically documented significantly lower TEs for Turkish students compared to German students in German language proficiency assessments.

Another crucial aspect within the context of student race and ethnicity is that minority ethnic groups are often less favored and underestimated by teachers [34]. Regarding racial classification, the discussion predominantly focused on the differential TEs among five basic racial groups: Black, White, Asian, Hispanic, and Latinx. Existing research consistently indicates that teachers generally have higher expectations for the academic performance and learning efforts of White and Asian students compared to Black and Hispanic students [18, 21, 35, 36]. Mahatmya *et al.* [30] found that, in contrast to Black students, teachers were more inclined to hold lower perceptions of the educational attainment of Hispanic students. Yet, Chang and Sue [37]'s finding quite different, reporting that as for 9-year-old primary student, teacher might hold more severe stereotype toward Asian American than African American. Notably, numerous studies have specifically examined the comparison between Black and White students. Black students have been shown to be subject to more biased expectations, such as being assumed to have more serious school adjustment problems, fewer competencies, more negative stereotypes, and poorer educational prospects [35]. For example, Hinojosa [38] reported that Black students are far more likely to be suspended from school than White students. The study by Santiago-Rosario [39] also demonstrated disproportionate Office Discipline Referral (ODR) outcomes for Black students compared to White students.

Furthermore, several studies have delved into the biased TE or unfair treatment by school staff towards a particular racial group, namely Black students [8, 26, 40, 41]. Malone *et al.* [8] emphasized that Black students are burdened with racial stereotypes and low TEs. Bottiani *et al.* [28] revealed that Black students who have experienced racial discrimination exhibit lower school engagement and higher levels of school disconnection.

Research exploring the impact of gender and SES on TE was relatively less exhaustive. In the context of SES, extant studies have consistently shown that teachers tend to have higher expectations for students from high-SES backgrounds [4, 11, 14, 23, 31, 34]. Some researchers also indicated that teachers demonstrate a positive implicit attitude towards high-SES students [32]. Cunningham *et al.* [13] further pointed out that high-SES students are more likely to perceive that their opinions are heard and understood in the school setting, have greater participation in school decision-making, and maintain closer relationships with teachers, which contributed to a higher level of student voice.

In terms of gender, multiple studies have revealed that teachers generally have higher expectations for girls than boys in most academic aspects [4, 14, 31, 36]. Mullola *et*

al. [22] found that teachers view boys' temperament and Educational Competence (EC) more negatively compared to girls'. However, the situation becomes more nuanced when considering specific subject areas. For instance, in the realm of mathematics, some studies suggest that teachers have higher expectations for boys [33], while Timmermans and Rubie-Davies [25] proposed an opposing view, arguing that TE in mathematics is higher for girls.

Beyond the differences in TE regarding students' academic performance, Kyere *et al.* [11] discovered that African American students, particularly males, can directly benefit in academic performance from more positive and race-conscious interactions with teachers. Research by Mireles-Rios *et al.* [7] also corroborated this perspective, indicating that teacher support moderates the relationship between discrimination and GPA for Latinx male students, yet this moderating effect was not observed in female students.

2) How does TE affect SO?

In general, TE influences multiple aspects of Student Outcomes (SOs), including mental states, academic performance, and future planning and behavior, which are vividly shown in Fig. 6. Regarding mental elements, TE primarily exerts influence on academic-related perspectives such as students' learning ability and self-concept in study [25, 30, 33], students' academic motivation [36], academic self-efficacy [11], cognitive engagement [13], and student's academic expectation [12]. Furthermore, TE also impacts students' self-perception of school or social groups, particularly concerning school connection and school engagement [28]. Additionally, the influence of TE extends to Black students' connections with supportive adults [40]. Other factors such as students' sense of belonging, satisfaction with school experience [5, 18], and students' outgroup acceptance [6] are also significantly influenced by TE. Liou and Rotheram-Fuller [41] emphasized that students' perceptions of school and classroom experiences, academic performance, sense of identity and belongings are shaped by different types of TE.
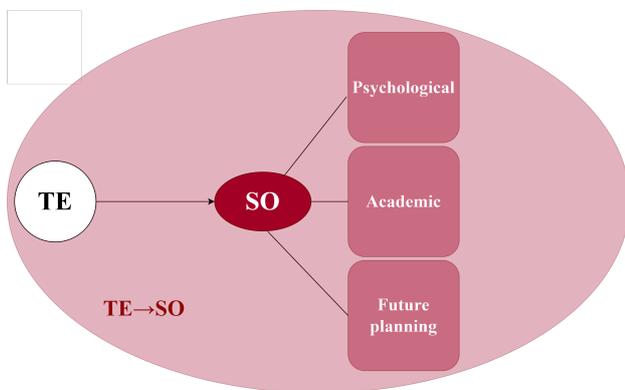

Fig. 6. The path of TE→SO.

In terms of academic performance, TE frequently influences students' subsequent academic performance [18, 25, 36] as well as academic development [42]. For

instance, Liou and Rotheram-Fuller [41] highlighted that some teachers' low expectations and ineffective teaching methods can lead to classroom chaos and poor academic performance. On the other hand, effective TE can enhance students' academic outcomes, such as test scores in specific subjects and GPA [7, 31] or educational achievement [10, 24]. However, findings from Holder and Kessels [33] suggested that negative stereotypes may have a limited impact on students' actual academic trajectories, as they do not result in biased grading or tracking.

TE also makes a difference in students' future academic planning. For example, the likelihood of a Black geometry student enrolling in a subsequent rigorous math course may be influenced by TE [43]. Additionally, TE can shape students' perceptions of graduation [36] and career direction [41]. Fox [44] found that in schools with both Black and White students and teachers, Black students with Black teachers experience positive expectations for their academic futures. Furthermore, TE might impact students' odds of suspension [38] as well as their desires and beliefs for entering university [5, 13]. Additionally, TE can also influence students' future behaviors, such as the number of ODR referrals received [26, 39].

3) Mediation roles of TE between SB and SO

The systematic review synthesized 40 studies, of which five explicitly examined the mediating role of TE in the SB→TE→SO pathway (see Fig. 7). Seven additional investigations documented the full SB→TE→SO trajectory but did not prioritize this mechanism as their primary focus. The remaining contributions focused on either the SB→TE or TE→SO segments. Collectively, these findings underscore TE as a critical intermediary construct linking SB to SO.
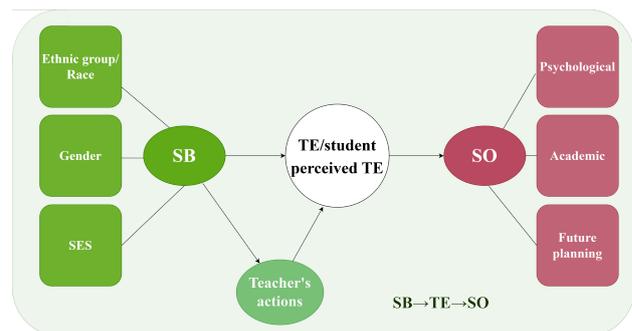

Fig. 7. Path of SB→TE→SO.

Notably, the mediational mechanisms identified across these studies exhibit congruence, consistently demonstrating that TEs are shaped by SB characteristics and subsequently influence academic outcomes [25, 36]. For instance, Timmament and Rubie-Davies [25] revealed that teachers' initial year TE varied significantly based on students' racial and gender identities, with these early perceptions exerting measurable effects on subsequent academic self-concept and achievement. Williams *et al.* [36] corroborated these findings, with the notable distinction that their outcome measure focused on

high school graduation likelihood rather than traditional academic performance metrics.

While all five studies operationalized the SB→TE→SO framework similarly, subtle divergences emerged in the operationalization of constructs. Specifically, Cherng [12] emphasized that TE manifests through teacher-student relationship quality, which serves as a significant predictor of SO. Gershenson *et al*. [45] expanded the model by incorporating teacher background variables, such as racial/ethnic congruence, as moderators of the SB→TE relationship. Hinojosa [38] introduced a unique mediational chain, demonstrating that SB initially shapes teachers' instructional practices (e.g., differential treatment), which subsequently influence students' perceived expectations and eventually impact suspension risk.

C. What Contextual Factors Moderate the Relationship between SB, TE, and SO?

1) Moderators on the influence of SB→TE

As depicted in the Fig. 8, in addition to the SB factors mentioned above, which are among the most dominant factors affecting TE, there are still other elements influencing the formation of TE. The current study categorized them into five basic groups: Teacher Characteristics, Student Characteristics, Students' Family Factors, School Characteristics, and Classroom Context. Among these five factors, Teacher Characteristics and Student Characteristics are the two most significant moderators.
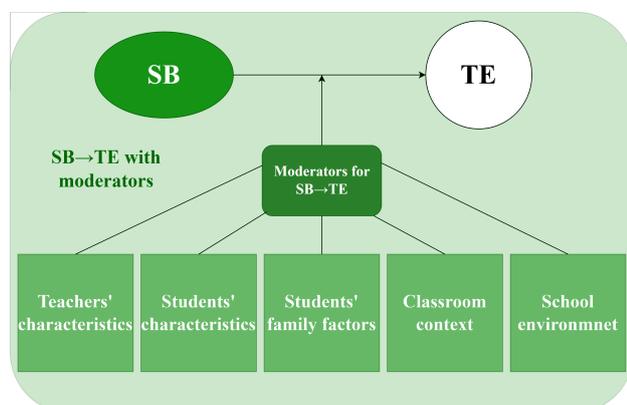

Fig. 8. Moderators of SB→TE.

Teacher Characteristics. Regarding Teacher Characteristics, the demographic match between students and teachers affects TEs, even when student conditions are controlled. If the race or ethnic group of teachers and students does not match, teachers may hold negative TE toward them [9, 19, 21, 45]. Wang *et al*. [16] also found that there are differential effects on TE among teachers from different ethnic groups. Russian teachers were less likely to personally acknowledge cultural variances, while Taiwanese teachers were more accepting due to their prior experiences. Pigott and Cowen [35] indicated that African American teachers rated all children more positively than White teachers, giving higher competency ratings and more positive expectations. Non-Black

teachers have significantly lower educational expectations for Black students than Black teachers [45]. Teacher gender also impacts the formation of TE [46]. Male teachers perceived boys as more positive and more capable in terms of Early Childhood (EC) development and teachability than female teachers [22]. However, according to Fox [44], congruence in race and gender between teachers and students has almost no effect. Besides sociodemographic factors, TE is also mediated by the teacher's personal qualities. For example, a higher level of teacher cultural awareness leads to higher TE [30]. Teacher teaching experience also matters; the older the teachers are, the more mature and rational they are when evaluating students [22, 36]. Teachers' teaching attitudes and their beliefs about certain subjects also influence their TE [42, 45]. Teachers' educational attainment [19], teachers' growth mindset [46], and teachers' mindsets along with racial stereotypes [41] are other factors related to teachers' personal qualities that may impact TE.

Student Characteristics. When it comes to Student Characteristics, a student's prior or current academic performance is the most prominent element influencing TE. Students' attitudes, learning behavior, language proficiency [20, 23, 36], as well as their track placement [21] and the effort they put in Ref. [46], all have an impact on TE. Misbehavior on the part of students may lead to a decrease in TE [38]. Nevertheless, even long-term high achievement did not prevent Black students from being subject to low TE [8]. The plans of students also play a role [21]. Moreover, studies have indicated that mental factors such as academic self-efficacy [11], self-concept, and task value are crucial elements affecting TE [25, 30]. Additionally, more participation in after-school activities by students results in higher TE [4].

Student's Family Factors. Family factors are mainly centered around three aspects: parental educational level [31, 32], family education resources [20, 38], and family involvement [8, 46]. Wang *et al*. [16] delved into the relationship between family education resources and TE in detail. They found that parents' knowledge of the host language, the relationships between teachers and mothers, as well as between teachers and fathers, parents' willingness and ability to assist their children with homework, parents' attitudes towards teachers, parents' dedication to their children's education, parent's characteristics, and family relationships all influence the formation of TE.

School and Classroom Context. The discussions on the school environment and classroom context are not comprehensive enough. Malone *et al*. [8] discovered that the persistence of racism in the school system, school policies and practices, and the perception of Whiteness as an unearned privilege had an impact on TE. Besides, other influencing factors include school quality [19], the school poverty rate [21], the regional differences of the school [46], and the characteristics of the school environment [18]. Moreover, some schools also bear the responsibility of intervening in biased TE. Naser *et al*. [26] proposed a system of 2 cues to prompt teachers to be

more deliberate in decision-making, which promotes the positive development of TE.

In the mediation of the relationship between SB and TE, the classroom context represents the most peripheral elements. The only two factors mentioned in these studies are class size [19] and average class performance [31].

2) What are the moderators of TE→SO?

Like the moderators of SB in shaping TE, Fig. 9 also illustrates the mediating mechanisms through which TE influences SO encompass multilevel factors: teacher characteristics, student attributes, school environment, family dynamics, and student-perceived discrimination.
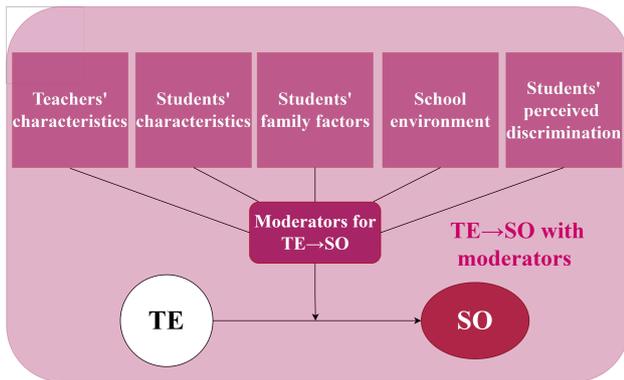

Fig. 9. Moderators of TE→SO.

Teacher Characteristics. Educators' traits and behaviors are significantly moderate SO. Racial/cultural congruence between teachers and students [42] and gender parity effects [43] have been linked to differential academic trajectories. Teacher personality also plays a critical role: caring and equitable instructional practices reduce student suspensions [38] by fostering safe, inclusive learning environments that enhance emotional well-being and engagement [18].

Student Attributes. SO is mediated by student-level variables, including grade level [13], gender, and prior academic experiences. For marginalized students, racial discrimination frequency [28] and ethnic identity expression [10] correlate with negative outcomes. Conversely, students' positive perceptions of TE buffer against disciplinary issues [38].

School Environment. Institutional factors exert complex moderating effects. School management practices and curricular design yield mixed outcomes [10], while supportive policies [28] and inclusive reforms enhance community cohesion and career aspirations [41]. Negative school cultures perpetuating racial stereotypes harm academic performance [41], whereas encouraging environments increase university enrollment intentions [5]. Nganga *et al*. [18] proposed nurturing environments valuing diverse student experiences as a mitigation strategy.

Family Dynamics. Parental expectations, such as gendered academic aspirations [10] and racial socialization practices [28], positively influence SO.

Perceived Discrimination. Ethnic minority students face compounded risks: perceived societal prejudice predicts reduced outgroup acceptance [6], while racial

discrimination directly undermines academic success [7, 10].

D. Relation among SB, TE, SO, and Moderators

Combining the above result, TE can be shaped by SB, which subsequently affects SO. During this path of SB→TE→SO, moderators such as teacher characteristics might also influence the formation of TE, while moderators like the school environment also make a difference in impacting SO. The total relation can be seen in Fig. 10.
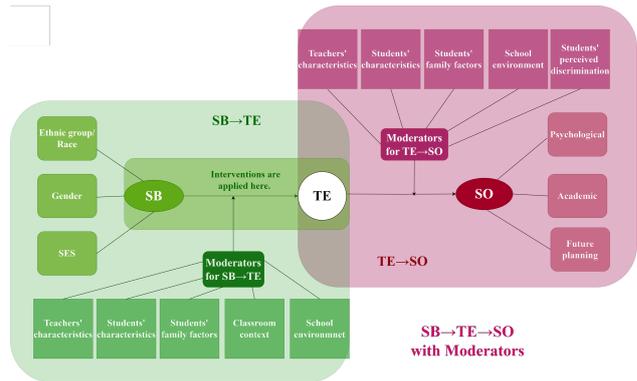

Fig. 10. Complete path of SB→TE→SO with moderations.

IV. DISCUSSION

A. Summary of Key Findings and Relevant Theories

1) TE as a mediator of educational inequality

As revealed above, TE is a significant moderator of the path SB→SO, being shaped by differential SB while exerting impacts on various SOs. The effect caused by this path is particularly eminent and influential for students from vulnerable groups in society, such as Students with a Migration Background (SMBs) (e.g., Wang *et al*. [16]), ethnic minority students (e.g., Neuenschwander *et al*. [23]), African American students (e.g. Kyere *et al*. [11]) and students from low-SES families (e.g. Timmermans, Kuyper, and Werf [31]). What's worse, as mentioned by Matre *et al*. [4] and Auwarter and Aruguete [14], the SES-gender cross effect leads to the lowest TE for low-SES males compared with other students. The negative impact of SES-ethnic cross effect is also reported in Timmermans *et al*. [25]'s research. Despite the potential for biased TE to exacerbate discrimination, evidence suggests that supportive expectations retain a positive influence on students' development. For instance, African American students, especially males, regardless of income level, may benefit directly in terms of academic performance from more positive and race-conscious interactions with teachers [11]. Echoing Bourdieu's theory of cultural capital [15], structural inequalities are implicitly reproduced through TE, as educators' evaluations reflect dominant cultural norms that disadvantage students whose backgrounds diverge from these standards. Thus, exploring strategies to provide students with a high, accurate, unbiased and positive TE should be attached greater importance.

Yet notably, the 40 articles being included in the current study pay little attention to students in school years higher than high school (students older than 19 years old), which might indicate the ineffectiveness of TE for college students. There are some possible explanations for this phenomenon. First, college students are mature adults, most of whom have developed their personalities and views of value, leaving limited space for teachers to influence them. Second, since the nature of college study, seldom do students in university, especially undergraduates, establish a close relationship or connection with their teachers. Therefore, the impact of TE on undergraduates is not that significant compared with students from lower school years. However, it is still necessary to explore the effect of TE on those who have to cooperate with their mentors at a close distance, like post-graduates and doctoral students, in future studies.

2) Multidimensional moderating effects of SB→TE→SO

Results have demonstrated that apart from SB, there exist several factors contributing to the form of TE (e.g., teacher characteristics, student characteristics, students' family factors, classroom context, school environment, and social stereotypes). Similarly, except for TE, moderators like student performance, school environment and student-perceived discrimination also make a difference in SO. These moderating effects also play an important role in attenuating the negative impact of biased TE in some contexts. For example, in schools where there are both Black and White students with Black and White teachers, there is a positive effect on expectations for Black students who have Black teachers. For expectations to graduate college or more, the same-race effects for Hispanics are similar and large [44].

3) Explanations for some contradictory results from different articles

When SB is related to gender, some contradicting findings are concluded within this realm. Most of the articles focusing on gender differences revealed that teachers' preferences are usually given to girls rather than boys. However, when it comes to TE on mathematic achievements, Holder and Kessels [33] discovered that teachers tend to hold higher expectations for boys, while Timmermans and Rubie-Davies [25] reported a contradictory result. It might be for the sake of different measuring approaches and students' school years. Holer adopted an empirical study method for students from primary schools, yet Timmermans applied quantitative multilevel model analysis for middle school children. These contradictory findings suggested that contextual factors (e.g., subject area, student age) may mediate gender-based expectation biases, warranting further investigation.

B. Effective and Pragmatic Interventions for the Negative Impact of SB→TE

Among 40 articles, 5 explored solutions to problems of unfair, inaccurate, and low TE. These include providing system 2 cues to teachers [26], using culturally responsive teaching [42], informing teachers of TE theories [23], and enhancing teachers' skills for diverse environments [16]. Overall, these can be seen as teacher training.

Other effective approaches were also found. In teacher-student relationships, deepening mutual understanding is beneficial [10], and positive student-teacher interactions improve academic performance [11]. School policies matter too, such as supportive school culture [6], objective educational standards [33], teacher arrangement [44], and school reform [41]. Nganga *et al.* [18] proposed inclusive teaching practices.

For political suggestions, since individual teacher efforts are not enough, schools and society need to reform jointly. This includes building TE monitoring mechanisms, like regular student interviews or questionnaires. Creating an anti-bias school environment is crucial, especially for protecting the self-esteem of minority students. Also, high-risk groups like Black, Hispanic, migrant, and low – SES students, especially males, should receive special attention, including teacher support and unbiased teaching.

C. Existing Issues and Future Directions in TE Research

Research on Teacher Expectations (TE) has several limitations. Methodologically, it predominantly relies on quantitative studies, leaving qualitative research scarce. This imbalance makes it difficult to answer in-depth "how" questions, such as how teachers justify low-expectations decisions or how students perceive and resist bias.

Geographically, there is insufficient cultural representation. Among 40 included articles, only 3 were from outside the European and American areas, with over half (23) from America. As a result, existing theories, like cultural capital, are mainly based on Western contexts, lacking explanations for TE formation in non-Western education systems.

In terms of cross-disciplinary perspectives, most studies analyzed race, gender, or SES in isolation. Only a few articles explored the cumulative effects of cross-identities. For example, only 2 articles have discussed the combined effect of three factors. Additionally, while many studies focused on ethnicity (17) and race (19), fewer considered gender (11) and SES (11) despite their significant impact on TE formation.

To make further and deeper explorations in these areas, future research should apply longitudinal data analysis to track the long-term impacts of TE on Student Outcomes (SO). Empirical research in Asia, Africa, and Latin America is needed to test the local adaptability of Western theories. Finally, an interdisciplinary framework, such as Critical Race Theory (CRT), should be used to analyze how multiple marginal identities interact and affect TE and SO.

V. CONCLUSION

This systematic review synthesized 40 empirical studies, focusing on the mediating role of Teacher Expectation (TE) in educational inequities along the

SB→SO pathway. TE, influenced by structural biases, significantly disadvantages marginalized students like low-SES individuals, ethnic minorities, and those with intersectional identities. It operates through explicit and implicit mechanisms, leading to differential academic tracking and biased disciplinary referrals, in line with Bourdieu's cultural capital theory. Methodologically, a moderated – mediation framework was proposed, categorizing moderators at individual, institutional, and societal levels. To mitigate biased TE, pre-service programs should incorporate implicit bias awareness and culturally responsive pedagogy. Schools need systematic monitoring tools, and structural reforms are crucial.

However, current research has limitations. Most studies mainly focused on short-term effects and a solitary research angle, most of which were from Western contexts. Future research should use longitudinal designs to study long-term impacts on marginalized students, conduct research in Asia, Africa, and Latin America to test theory universality, understand teacher resistance to biases through qualitative studies, and conduct rigorous assessments of equity policies. Addressing biased TE is essential for educational equity, and continuous efforts are required to break the cycle of inter-generational poverty, reform institutional norms, and prioritize justice in teaching.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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