

The role of culture in student discipline of secondary schools in cross-cultural context: a systematic literature review and future research agenda

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Abstract

Purpose – The present study is a systematic review that identifies future research avenues on culture and discipline in secondary schools in a cross-cultural context.

Design/methodology/approach – The literature, as published in top management, education and psychology journals, was reviewed around culture and discipline in secondary schools. This systematic literature review (SLR) used several preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines and categorised the studies published during the period 2014–2020.

Findings – The author identified six major themes: (1) punishment, (2) restorative practices (RPs), (3) racial disparities, (4) competitiveness, (5) school climate and (6) secondary school student discipline in a cross-cultural context. Further, the author suggested several future research avenues under these emerging themes.

Research limitations/implications – The scope of this study is limited to culture and discipline in a secondary school context. The findings provide a solid foundation for researchers in the areas of culture and discipline in secondary schools.

Originality/value – To the best of the author's knowledge, this study can be considered as the first SLR conducted using PRISMA guidelines to identify several under-researched areas in the field of culture and discipline in secondary schools in a cross-cultural context. The study provides several future research insights.

Keywords Cross-cultural context, Systematic literature review, Secondary schools, Discipline

Paper type Literature review

Introduction

The focus of this paper is to review research papers published on culture and discipline in secondary schools in a cross-cultural context and to identify possible future research avenues. Hue (2001) showed that in some schools, many teachers expressed concern that half of all classroom time was spent managing students' behaviour, rather than on instruction. Another reason to conduct this study is that most of the studies on student discipline focussed on parenting and education, generally pointing towards a positive correlation with some performance indicators, and very few studies empirically test discipline as a driver of academic performance (Baumann *et al.*, 2020). Further, several researchers identified that students from different cultural backgrounds have different disciplinary behaviours (Baumann *et al.*, 2020; Jenkins and Ueno, 2017; Vincent *et al.*, 2015). Therefore, it is essential to investigate the role of culture and discipline in secondary schools in a cross-cultural context, which is an important area worth further investigation. Moreover, during the literature review, it was identified that none of the studies up to date were found which systematically reviewed literature on the role of culture of student discipline in secondary schools using preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. Therefore, this study can be considered as the first systematic literature review (SLR) to identify future research avenues on culture and discipline in secondary schools in a cross-cultural context. Therefore, this leads to the formation of the research question: "What



are the future research perspectives on culture and discipline in secondary schools in a cross-cultural context?"

School discipline can be defined as "all activities that are implemented to control learner behaviour to enforce compliance and maintain order" (Bechuke and Debeila, 2012). Further, Cameron (2006) indicated school discipline as the school policies and actions taken by school personnel to prevent students from engaging in unwanted behaviours. According to Cameron (2006), school discipline has two main goals. The first goal is to ensure the safety of staff and students, and the second goal is to create an environment that encourages learning. Serious student misconduct involving violent or criminal behaviour defeats these goals and often makes headlines in the process (Cameron, 2006). However, the commonest discipline problems involve noncriminal student behaviour. These less dramatic problems may not threaten personal safety, but they still negatively affect the learning environment. Disruptions interrupt lessons for all students, and disruptive students lose even more learning time (Cameron, 2006). Therefore, school administration bodies need to develop various rules and regulations to maintain a peaceful school environment (Lawa et al., 2019; Mansfield et al., 2018; Nakpodia, 2010).

Moreover, *culture* can be defined as the ideas, customs and social behaviours of a particular people in a society (Cobley, 2008). Culture, by its simplest terms, is a system of meaning shared by a group of people to make sense of their reality or as Hofstede (1991) puts it, "the collective programming of the mind" (Baumann et al., 2020; Kuczynski et al., 1997). Culture greatly influences the thinking pattern of a person, as well as how they speak, act and experience the world around them (Baumann et al., 2020). In Eastern and Western educational settings, culture plays an important role. For example, many North East Asian parents in Japan and China provide additional tutoring to their children for subjects such as maths, science and language (Yamamoto and Brinton, 2010). Park and Abelman (2004) stated that even in the 1990s, private classes on English language were popular in Korea.

Different countries use different methods to handle disciplinary issues in a secondary school context. In America, teachers' conventional approaches to school discipline include suspension, corporal punishment to manage student behaviours and maintain order (Cameron, 2006). A comparison study on Chinese and American cultures found that Chinese parents use stricter disciplinary actions to help their children to achieve educational success (Chao, 1994; Chen, 2005). In developing countries, teachers use more equal or rigid gender roles to maintain higher classroom disciplinary levels (Chiu and Chow, 2011). In contrast, developed countries have more teacher support and teacher-student relationships to maintain higher classroom disciplinary levels (Chiu and Chow, 2011).

Several studies assessed the student discipline and academic performance using the data from the Programme for International Student Assessment (PISA), which is a worldwide project by the Organisation for Economic Co-operation and Development (OECD) (Baumann et al., 2020). PISA started in 2000 and is conducted every three years (Baumann and Hamin, 2011). In the last few testing rounds, Confucian societies (such as China, Japan, Korea, Singapore, Taiwan and Vietnam) outperform the West and other Asian societies, indeed outperforming the majority of the world (Baumann et al., 2020).

Systematic literature review approach

SLRs are often contrasted with traditional literature reviews because systematic reviews are objective, replicable, systematic and comprehensive, and the process is reported in the same manner as for reporting empirical research (Weed, 2005). The purpose of this SLR was to identify the future research areas on culture and discipline in secondary schools in a cross-cultural context. The author conducted the database search manually using several

keywords, such as “culture and discipline in secondary schools”, “why discipline and culture matters in secondary schools” and “discipline and culture of high schools”. Researcher reviewed studies published in top management, psychology and education fields across several databases including Google Scholar, Griffith Library, Emerald Full Text, ProQuest, Science Direct and Scopus. A total of 28,120 studies were identified with a customer search ranging between 2014 and 2020.

The main aim of this review paper is to identify the most recent research gaps in culture and student discipline of secondary schools. Therefore, a period of six years been selected to avoid using outdated content in the reviewing process. This can be further justified based on the precedents of reviews that focussed on only a five- to six-year review period with findings indicating the most recent research gaps (Jarquin *et al.*, 2011; Park *et al.*, 2015; Setati *et al.*, 2009).

All results were limited to English-only peer-reviewed studies. Initially, the author grouped the identified studies and removed the duplicated records of 9,718 studies from the system. The remaining were assessed using the below mentioned criteria. Studies that were out of the reviewing scope such as studies conducted on elementary schools and in tertiary and university contexts and other studies that do not contribute to the secondary school sector were removed from the process. The studies published in either “B” or above in ABDC ranking or “Q2” or above in SC imago ranking were selected for the final reviewing. Several studies also considered the higher impact factor of the journal and contribution of the paper. Finally, a total of 60 studies were identified as qualified. Figure 1 further illustrates the inclusion and exclusion criteria used for this review.

These final 60 studies include journal papers, book reviews, and thesis projects. These were summarised with six sections as Source, Journal, Focus, Theory, Data type, and Findings using Table A1 (Please refer Appendices).

Thematic future research agenda

As in Table A1, the author reviewed each study carefully and identified six themes that denote future research avenues in the context of secondary school student discipline in a cross-cultural context. These themes are (1) punishment, (2) restorative practices (RPs), (3) racial disparities, (4) competitiveness, (5) school climate and (6) secondary school student discipline in a cross-cultural context.

Punishment

When considering the first theme of “punishment”, it was identified that East and South Asian countries such as India (Deb *et al.*, 2017), Bangladesh (Mohiuddin *et al.*, 2012), Korea, Japan and Taiwan (Baumann *et al.*, 2020) have a higher level of academic performance due to high levels of discipline in the classrooms. Even this aspect is influenced by several school practices such as teachers checking homework (Baumann *et al.*, 2020), wearing school uniforms (Baumann and Krskova, 2016; Baumann *et al.*, 2020) and even due to school corporal punishments (Gershoff, 2017b; Ssenyonga *et al.*, 2019). It is highly recommended for future researchers to examine the relationship between stricter school policies and stronger academic performance amongst students by combining experimental research approaches as well as school corporal punishments and physical safety of children.

It appears that countries with stricter school policies have often stronger academic performance amongst students (Baumann and Krskova, 2016; Baumann *et al.*, 2020). However, very few studies have assessed the relationship between stricter school policies and stronger academic performance amongst students (Baumann and Krskova, 2016; Baumann *et al.*, 2020). Anyon *et al.* (2016) pointed out the need for experimental research on

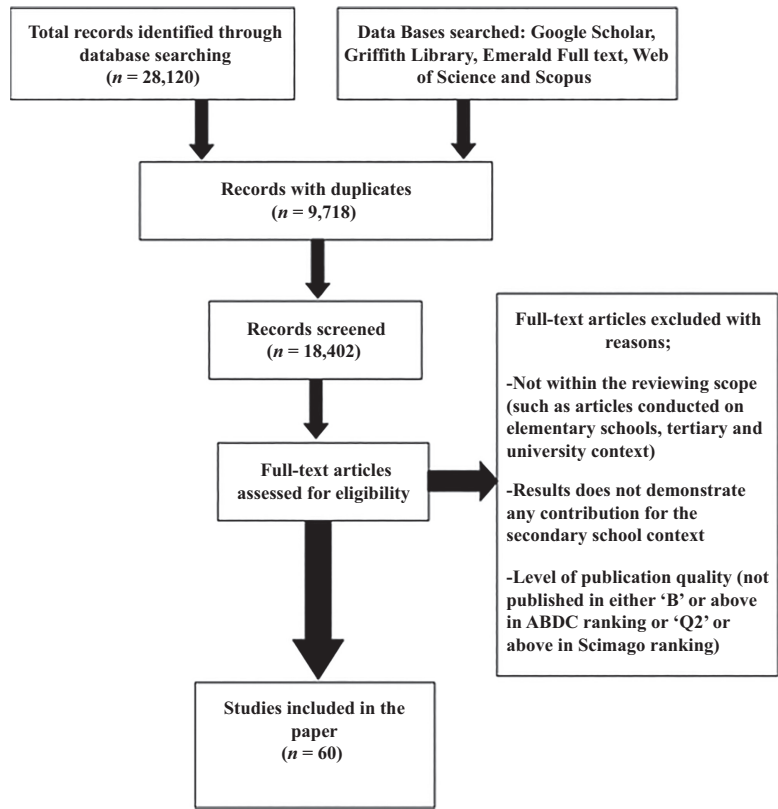


Figure 1.
Flowchart of the
literature search
process (PRISMA)

Source(s): Developed by author

reducing students’ risk of exclusionary discipline infractions. Therefore, it is highly recommended for future researchers to examine the relationship between stricter school policies and stronger academic performance amongst students by combining experimental research approaches.

Moreover, corporal punishment of children in schools has been the focus of many researchers and policymakers around the world (Gershoff, 2017b). For instance, in some parts of East Asia and in some US states, corporal punishment is highly used by teachers (Gershoff, 2017b; Ssenyonga *et al.*, 2019). Although much is known about parents’ use of corporal punishment, to date, researchers have not focussed on the school corporal punishments in the area of physical safety of children (Gershoff, 2017b; Ssenyonga *et al.*, 2019). Therefore, Anyon *et al.* (2014) identified that experimental trials of alternatives to suspension and classroom-based interventions, like restorative approaches that appear to reduce students’ risk of school exclusion, as it is necessary with more research focussing on the efficacy of these approaches in reducing racial disparities in school discipline outcomes.

Restorative practices

The second theme of “restorative practices” is an alternative solution to school discipline and a way to engage students who misbehave in school. RPs can be considered an alternative

approach to school discipline and a way to engage students who misbehave in school (Mayworm *et al.*, 2016). Recently, researchers have identified that RPs are an effective mechanism to reduce suspension and recidivism, which act as viable alternatives to punitive discipline procedures (Mansfield *et al.*, 2018) as well as improves student–teacher relationships and reduces the racial disciplinary gap (Gregory *et al.*, 2016; Gregory and Fergus, 2017). In addition, restorative and in-school suspensions shield learners from out-of-school suspensions (Anyon *et al.*, 2014). Although researchers focussed on implementation of RPs in schools, the studies focussed on measuring the effectiveness of these implemented outcomes fall within an under-researched area. This is because measuring the outcomes is often challenging as they can include elements such as environment, culture and relationships (Anyon *et al.*, 2014). Most of the literature centres around contextual study of individual experiences while examining restorative activities (Raffenbeul, 2019). Very little evidence is available to show the correlation with processes and the effect on student conduct or discipline.

Additionally, most restorative justice research lacks rigorous impact evaluation studies to assess restorative justice outcomes (Schiff, 2018). Up to date, there is one five-year randomised trial in process that is studying the restorative justice impact on developmental outcomes and problem behaviours (Acosta *et al.*, 2016). Further, Bevington (2015) identified the need for more empirical research on the impact of restorative justice in educational settings, including causality. The tools to be used as RP strategies and the influence of culture change on RP strategies are another under-researched area (Bevington, 2015).

Further, Kline (2016) mentioned future researchers should explore teachers' classroom management skills as well as their perceptions of acceptable classroom behaviour. Similarly, Gregory *et al.* (2016) indicated that up-to-date studies were unable to explain why some teachers implemented RP more than other teachers. Explanatory factors to consider in future include conflict or correspondence between the underlying values of RP and teachers' approach to discipline and the degree to which teachers perceive that RP impedes or facilitates instruction (Gregory *et al.*, 2016). Future research should explore possible mediation mechanisms that can help explain why well-implemented RP has been linked to decreased dependence on exclusionary discipline, especially amongst African American and Latino students.

Mayworm *et al.* (2016) mentioned that research on the effectiveness of teacher training programmes focusses on discipline and restorative justice. Based on the literature, it is evident that more studies are necessary to identify most effective restorative justice approaches through proper teacher training strategies. Similarly, Murphy (2018) indicated the need for future research to study the critical aspects of restorative justice. While many experts and professionals contribute to the whole-school method, it is important to research and compare the findings from the whole-school and add-on approach to recognise commonalities and differences.

Racial disparities

The third theme of “racial disparities” is a common research area in secondary school education research (Bottiani *et al.*, 2016). However, more research is needed to check the association between students' perceptions of teachers' success expectancies and academic outcomes, as perceived discrimination between “White” and “Black” students in the United States secondary schools may cause students to mistrust the academic performance assessment process (Bottiani *et al.*, 2016). Furthermore, future research should examine the interaction of faculty and student diversity as contextual influences on racial differences in student perceptions of school support and school equity in particular (Bottiani *et al.*, 2016) as additional research is needed to understand how students' racial backgrounds interact with the school context to shape their perceptions of school support.

Bradshaw *et al.* (2010) focussed their research exclusively on “Black” and “White” students and teachers and identified the need to replicate these findings with greater diversity. The racial discipline gap was not totally eliminated in classrooms with high RP implementation, which raises many questions about whether future consultants can further boost these teachers’ RP implementation or whether they need to offer other approaches to improve teacher–student relationships (Gregory and Fergus, 2017). Additionally, Cornell and Bradshaw (2015) in their literature review emphasised the importance of bullying prevention in secondary schools, noting that this bullying occurs as a result of racial disparities. Nevertheless, bullying prevention research should focus on ways to change student behaviour, classrooms and school-level policies in order to prevent bullying (Cornell and Bradshaw, 2015).

Okonofua and Eberhardt (2015) proved experimentally, for the first time, that teacher responses can contribute to racial disparities in discipline. Consequently, teacher responses may also tend to drive racial disparities in student attitudes, such as teacher differential treatment; this can inspire “Black” students to some degree to persistent misconduct. In future studies, this possibility is worth exploring. Existing research suggests racial disproportionality persists in school discipline, even when positive discipline is substituted for zero tolerance policies. However, to date, no proper method has been identified to link these areas for further investigation (Lustick, 2017). Martin and Smith (2017) compared African American girls to “White” girls, to determine if subjective discipline and social control of “Black” girls lead to eventual school dropout. Using the findings of this study, future researchers can train new teachers or guide teacher education programmes.

Competitiveness

The fourth theme indicated the “competitiveness”-related studies in secondary school education research. Competition is extremely strong in education. Baumann and Krskova (2016) identified many positive aspects of school discipline across five geographical clusters, with East Asia leading the way using the PISA data. Major findings indicated significant differences in discipline for low-, medium- and high-performing students. Peak-performing students had the highest level of discipline. Students wearing a uniform listened better, with lower teacher waiting times. These findings further illustrate the relationship between student disciplines and competitiveness as previous research on drivers of academic performance mainly focussed on the amount of funding provided for education (Jensen *et al.*, 2011), classroom size (Ajayi *et al.*, 2017; Finn *et al.*, 2005; Hoxby, 2000), hours of schooling (Huebener and Marcus, 2017; Ray and Lancaster, 2005) and teacher quality (Agasisti and Longobardi, 2014; Anttila and Väänänen, 2015; Gershoff and Grogan-Kaylor, 2016; Gittins, 2006; Mischel, 1976) without considering competitiveness as a major factor.

Further, Krskova and Baumann (2017) found the relative importance of school discipline (88%) in comparison to education investment (12%) on educational performance, with both variables found to be significantly associated with competitiveness directly. The schools or countries with stricter school discipline methods often performed academically well (Baumann *et al.*, 2020). However, what has been missing in the current literature is the proper links on discipline to performance and performance to competitiveness. Currently, Baumann *et al.* (2020) are the first to link discipline to performance and performance to competitiveness in the educational context by introducing a new research model named Confucianism, discipline and competitiveness (CDC).

Similarly, Krskova (2015) examined the links between everyday school operations that result in various levels of school discipline, national financial investment in education, academic performance measured every three years globally by the OECD’s PISA and national competitiveness levels. This study identified a new conceptual framework

combining school discipline, education investment, educational performance and competitiveness into one model for the first time, and the subsequent testing of the overall model has provided empirical support for the proposition that school discipline has an indirect impact on competitiveness (Krskova and Baumann, 2017).

Previous scholars, however, have found that there are variations in discipline levels between geographical regions (Baumann *et al.*, 2012) and academic results performance (Baumann and Krskova, 2016). The longitudinal relation between education and competitiveness in different regions of the world needs to be evaluated in further studies (Baumann and Winzar, 2016). This leads to another future research perspective on investigating the extent to which different geographical regions differ in relation to school discipline and its impact on educational performance and competitiveness.

School culture

The fifth theme indicated the “school culture”. A school’s definition of culture defines the characteristics of a school as it represents profound trends of values, beliefs and practices that have been developed over its history (Deal and Peterson, 1990). When considering the school climate or culture, research on encouraging resilient students (those who can obtain good academic results, despite coming from a disadvantaged socio-economic background) is less available (Agasisti and Longobardi, 2014). Moreover, Anttila and Väänänen (2015) pointed out that teacher emotional demands are another area lacking attention. Bartlett *et al.* (2017) found gaps on studies about existing support systems for refugee students in middle schools of the USA. Another under-researched field in American schools is teenage development correlated with school discipline (Amemiya *et al.*, 2020). The first exploratory study that explored the extent to which students with aboriginal status receive disproportionate rates of office discipline referrals (ODRs) and more severe administrative consequences relative to students without aboriginal status was conducted in Canada by Greflund *et al.* (2014). This study can be replicated by other researchers in other countries.

Even though many researchers have studied the role of school principal on learner discipline, how the type of leadership may influence learner discipline and which type of leadership contributes to positive learner behaviour is under researched (Belle, 2016). Future studies are necessary to investigate the role of disciplinary climate in the classroom and student math self-efficacy on math achievement (Cheema and Kitsantas, 2014). Childs *et al.* (2016) examined the relationship between School-Wide Implementation of Positive Behaviour Intervention and Supports (SWIPBIS) and student discipline outcomes of schools in Florida. This study can be replicated by future researchers while adding more time points and assessing potential deceleration of discipline data across time. More cross-cultural research is necessary to examine the main effect of disciplinary climate strength on student reading performance and its moderating effect on the relationship between climate level and student reading performance (Guo *et al.*, 2018). Lawa *et al.* (2019) identified several daily school activities that affect school discipline, such as morning ceremonies, sports activities, etc. They recommended replicating this study for different cultural contexts to identify the different daily school activities that affect the student discipline in different countries.

A study regarding the role of school culture on school improvement and school reform initiatives found that school leadership and teachers strengthen the culture of the school. With the intent of improving teaching practice and student learning, this is a promising school reform strategy (Ohlson *et al.*, 2016). Further, Ohlson *et al.* (2016) suggested replicating the same study with different cultural settings. Similarly, student performance varies dramatically across countries but little is understood about the role of teacher quality in explaining these differences (Hanushek *et al.*, 2014). Even this paper used new international data from the Programme for the International Assessment of Adult Competencies (PIAAC)

that allow, for the first time, to quantify teacher skills in numeracy and literacy. This study can be replicated for different countries.

Student discipline

Finally, the sixth theme indicated the “student discipline”. School discipline applies to school policies and techniques for the control of student actions and activities used to foster self-discipline in school (Gershoff, 2017a). A growing body of research has examined and explored the role of culture and discipline in secondary schools in a cross-cultural context, as shown in Table A1. There are variations between every country regarding discipline and culture; therefore, different countries should focus on different aspects of student discipline. This could be further justified as follows: for example, in Kenya, researchers suggest further studies to develop strategies that can effectively handle most of the indiscipline cases in secondary schools (Njoroge and Nyabuto, 2014). They encourage researchers to investigate whether the anticipation of self-approval motivates or demotivates the behaviour of students (Salgong *et al.*, 2016) and to identify strategies to enhance student discipline in public secondary schools (Asiligwa, 2015). More studies are required on resources of schools for the guidance and counselling of students, legal and policy framework, lack of trained teacher counsellors (Wambua, 2017) and strict workloads of teachers that make it difficult for guidance and counselling to succeed in promoting student discipline (Salgong *et al.*, 2016).

For Tanzania, studies are necessary to examine divergent perspectives on what constitutes disciplinary measures, social control and corporal punishment of students in secondary schools (Semali and Vumilia, 2016). For Nigeria, Ajayi *et al.* (2017) identified that a class size of a maximum of 40:1 student–teacher ratio significantly influences classroom discipline, engagement and communication. However, this finding has not been further researched by Nigerian researchers. When considering Indonesia, more studies on students’ reading habits in raising discipline are necessary (Wandasari *et al.*, 2019). Studies on teachers that show that their approach to managing the actions of students should be more intense and that they should work well with parents are also under researched (Lawa *et al.*, 2019). Further, in Finland, future studies need to concentrate more on emotional work, which plays an important role in developing the kind of learning atmosphere that is in line with the progressive educational goals of fostering the personal growth of students and their free self-expression (Anttila and Väänänen, 2015).

For the USA, the relationship between student discipline history and special education identification, as well as the relationship between student achievement and discipline, is also identified as an under-researched area (Anderson and Ritter, 2015). The authors, Martin and Smith (2017) mentioned the need for more studies on professional development sessions for in-service teachers in the USA. Cornell and Bradshaw (2015) emphasised the importance of research on safe and supportive school climates. Peguero and Bracy (2015) also mentioned future researchers should consider the role that community-level variables play in shaping school climate and consequently, in influencing who drops out at a disproportionate number. The studies on diversity in schools, such as in-service teachers, pre-service teachers and school leadership preparation programmes with a more dynamic view of culture, are necessary for the USA (Bartlett *et al.*, 2017). The role of school culture on the United States’ school reform initiatives also requires more research (Ohlson *et al.*, 2016). The USA has the world’s highest prison population rate. Consequently, taxpayers spend more than several billion dollars a year on incarceration expenses. Eliminating discriminatory and punitive practices should be the priority of each school board (Thompson, 2016).

However, only one study to date has been published to examine the country’s legal structure for school education. This research was a qualitative study performed using observations and interviews. Wandasari *et al.* (2019) evaluated the Regulation Minister of

Education and Culture Number 23 of 2015 in the state high school, Penukul Abab Lematang Ilir (PALI). This study can be replicated by other countries to identify the ongoing issues of the country about secondary school education. For China, Wang (2016) suggested conducting more research on instructional leadership and broad-based teacher leadership support, which results in successful learning and teaching. For Rwanda, some strategies such as guidance and counselling should be implemented in schools by having qualified teachers in guidance and counselling, which are lacking at the moment. Parents need to be closely involved in the behaviour of their children. Therefore, engagement strategies should be devised; for example, parent and teacher meetings, parent administration meetings, clear communication channels established between parents and school, amongst others. Therefore, Otara and Uwanyirigira (2018) suggested more engagement strategies related to research for Rwanda. Finally, school violence by Ugandan teachers emphasised that teacher training requires the integration of effective stress management, non-violent discipline strategies and attitude change into the curriculum, which needs further attention.

Conclusion

The purpose of this SLR was to identify future research perspectives regarding culture and discipline in secondary schools in a cross-cultural context. Consequently, the literature published in top management, psychology and educational sources during the period of 2014–2020 has been reviewed. As a result of this SLR, the author identified six major themes as (1) punishment, (2) RPs, (3) racial disparities, (4) competitiveness, (5) school climate and (6) student discipline in a cross-cultural context. Based on this, the author has proposed several future research directions under these six areas. To the best of the authors' knowledge, this study can be considered as the first SLR conducted using PRISMA guidelines on culture and discipline of secondary schools in a cross-cultural context with several future research insights.

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| Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|--------|--------------------------------|---|---|-----------------------|---|
| 1 | Acosta <i>et al.</i> (2016) | Ecological theory | Surveys | Restorative practices | (1) Advance the theory of positive youth development by empirically validating that restorative justice principles affect students' positive developmental outcomes |
| 2 | Ajavi <i>et al.</i> (2017) | Social constructivist theory | Surveys | Competitiveness | (1) Smaller class sizes, with less than 40 students, have a favourable influence on classroom discipline, engagement and communication |
| 3 | Anderson and Ritter (2015) | ND | Arkansas Department of Education | Student discipline | (1) "Black" students, especially males and low-income students, were more likely to receive certain types of exclusionary consequences such as out-of-school suspension, expulsion and referrals to "Alternative Learning Environments" relative to in-school suspension |
| 4 | Anttila and Väänänen (2015) | A literature review | A literature review | Competitiveness | (1) Emphasised the nature of teaching as a form of emotional labour |
| 5 | Anyon <i>et al.</i> (2014) | ND | Denver Public Schools Administrative data set | Punishment | (1) Restorative practices in schools have potential as an inclusive strategy to improve school discipline outcomes without excluding students from the classroom |
| 6 | Agasisti and Longobardi (2014) | Prior study of Jain <i>et al.</i> (2014) | PISA | Competitiveness | (1) The education system in schools can play a role in helping economically poor students to overcome a disadvantaged family background |
| 7 | Anyon <i>et al.</i> (2016) | Prior study of Anyon <i>et al.</i> (2014) | Surveys and administrative data | Punishment | (1) Findings discovered that youth from groups that tend to be overrepresented in suspensions and expulsions (e.g. "Black", Latino and Native American youth; boys and students in special education) had similar, if not greater, rates of participation in restorative interventions than their peers |

(continued)

Table A1.
Summary of the key studies reviewed in this paper

Table A1.

| Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|--------|----------------------------|---|--|---|--|
| 8 | Arifin (2015) | Gap theory of Dessler and several motivational theories | Questionnaire | Competitiveness | (1) Organisational culture on output orientation does not encourage high working spirits of teachers |
| 9 | Amemiya et al. (2020) | Psychological reactance theory | Mid-Atlantic region schools of the USA | School culture | (1) African American adolescents receive more minor infractions than their “White” peers |
| 10 | Bartlett et al. (2017) | Acculturation theory | Interviews | School culture | (1) School diversity (extracurricular activities, skill-building activities, diversified teachers) improved refugee students’ growth experience both academically and socially (2) Schools encouraged assimilation to “American culture” while respecting “home culture” of the refugee students |
| 11 | Baumann and Krskova (2016) | Human capital theory | PISA | Punishment Competitiveness School culture | (1) The results demonstrate differences in school discipline across five geographical clusters (Europe, Americas, Far East Asia, rest of Asia, Anglo-Saxon cluster) with East Asia leading the way (2) East Asia ranks the first, followed by the rest of Asia for the four discipline components of students listing well, noise levels, teaching waiting time and class start time (3) Students who peak perform academically are also the ones with the highest level of discipline (4) School discipline and school uniforms play a vital role in explaining academic performance |

(continued)

| Source | Journal/book/theses | Theory | Data type | Emergent themes | Findings on discipline constructs |
|-------------------------------------|---|---|--|---|---|
| 12 Baumann and Winzar (2016) | <i>Asia Pacific Journal of Education</i> | Hofstede cultural dimensions | TIMSS, PISA, interviews | Competitiveness School culture | (1) A significant regional difference in education and competitiveness was identified with East Asia, the rest of Asia and Anglo-Saxon countries performing more and the South/Central American cluster and most European countries performing less (1) Strict discipline and a focus on academic performance contribute more to work ethic in the Asian countries than Western countries as these two components of pedagogy are not significantly linked to work ethic (1) A comprehensive investigation of three interrelated concepts: Confucianism, discipline and competitiveness and how they relate to performance in East Asia |
| 13 Baumann and Krskova (2016) | <i>Asia Pacific Business Review</i> | Institutional theory | Questionnaire | Competitiveness School culture | (1) Strict discipline and a focus on academic performance contribute more to work ethic in the Asian countries than Western countries as these two components of pedagogy are not significantly linked to work ethic (1) A comprehensive investigation of three interrelated concepts: Confucianism, discipline and competitiveness and how they relate to performance in East Asia |
| 14 Baumann <i>et al.</i> (2020) | Book name is <i>Confucianism, Discipline, and Competitiveness</i> (CDC) | The authors introduced a new research model named CDC | PISA, WEF | Punishment Competitiveness School culture | (1) A comprehensive investigation of three interrelated concepts: Confucianism, discipline and competitiveness and how they relate to performance in East Asia |
| 15 Bevington (2015) | <i>Pastoral Care in Education</i> | ND | Semi-structured interviews | Restorative practices | (1) Revealed the important factors of congruence (such as climate for learning, life skills, emotional literacy, behaviour and relationships) between different members of the school community (1) "Black" students were perceived as less caring and equity relative to "White" students overall, and equity and high expectations were lower in diverse schools for both "Black" and "White" students (2) Identified a need for intervention to improve perceptions of school support for "Black" youth and for all students in lower income schools |
| 16 Bottiani <i>et al.</i> (2016) | <i>Journal of Youth and Adolescence</i> | Motivational development of engagement theory Skinner and Pitzer (2012) , youth development and resiliency models of Benard (2004) | Maryland State Department of Education | Racial disparities | (1) "Black" students were perceived as less caring and equity relative to "White" students overall, and equity and high expectations were lower in diverse schools for both "Black" and "White" students (2) Identified a need for intervention to improve perceptions of school support for "Black" youth and for all students in lower income schools |

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Table A1.

Table A1.

| Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|--------------------------------|---|---------------------------------|-----------------------------|--------------------|--|
| 17 Balfanz and Fox (2014) | <i>Journal of Applied Research on Children</i> | ND | Florida K-20 Education data | School culture | (1) "Black" students were suspended more times than "White" students (2) Special education students were suspended at least once, compared to 9th grade students without disabilities (3) Free-reduced lunch programme-eligible students were suspended at least once versus non-eligible students |
| 18 Belle (2016) | Doctoral thesis University of South Africa | Socially disorganisation theory | Interviews, observations | School culture | (1) This study developed a student discipline management model that school principals may adopt to maintain student discipline in secondary schools |
| 19 Chi <i>et al.</i> (2018) | <i>International Journal of Science Education</i> | ND | PISA | School culture | (1) The disciplinary climate, rather than teacher support, could moderate the association between enquiry-based science activities and student science achievement for both genders |
| 20 Caro <i>et al.</i> (2016) | <i>Studies in Educational Evaluation</i> | ND | PISA | School culture | (1) A positive relationship was found between cognitive activation strategies (such as more time to think, asking questions, etc.) and mathematics performance amongst students |
| 21 Cheema and Kitsantas (2014) | <i>International Journal of Science and Mathematics Education</i> | ND | PISA | School culture | (1) An increase in a student's perception of disciplinary climate may lead to a corresponding increase in math achievement for all three races ("White", "Black" and Hispanic) |
| 22 Cornell and Bradshaw (2015) | <i>School Psychology Review</i> | A literature review | A literature review | Racial disparities | (1) This article reviewed the literature that emphasised the importance of bullying prevention in secondary schools |

(continued)

| Source | Journal/book/theses | Theory | Data type | Emergent themes | Findings on discipline constructs |
|--------------------------------------|--|--|--|---|---|
| 23 Childs <i>et al.</i> (2016) | <i>Journal of Positive Behaviour Interventions</i> | ND | Florida Department of Education | School culture | (1) There is a decreasing trend in the frequency of student discipline outcomes across time for schools implementing SWPBIS (2) The schools implementing SWPBIS had a higher academic performance than schools not implementing SWPBIS |
| 24 Fergus (2019) | <i>Phi Delta Kappan</i> | A literature review | A literature review | Restorative practices | (1) This article reviewed the literature to show how poverty may influence children's education and discipline levels |
| 25 Greflund <i>et al.</i> (2014) | <i>Canadian Journal of School Psychology</i> | ND | Archival records of Alberta and British Columbia | School culture | (1) Schools implementing Positive Behavioural Interventions and Supports (PBIS) for students had higher school disciplinary levels |
| 26 Gregory <i>et al.</i> (2016) | <i>Journal of Educational Psychological Consultation</i> | Theory on authoritative approaches to adolescents | Surveys | Restorative practices Racial disparities | (1) High RP-implementing teachers have more positive relationships with students and reduced racial discipline issues |
| 27 Gershoff and Grogan-Kaylor (2016) | <i>Psychology, Health, & Medicine</i> | A literature review | A literature review | Punishment Competitiveness | (1) School corporal punishment is consistently linked with harm to children's learning, physical safety and mental health, and it is not effective at maintaining discipline and facilitating academic achievement |
| 28 Guo <i>et al.</i> (2018) | <i>Asia Pacific Education Review</i> | Situation Strength theory Mischel (1976) Dispersion theory Brown and Kozlowski (1999) | PISA | School culture | (1) A significantly positive relationship between climate strength and student reading performance in China and the USA |
| 29 Horton (2015) | <i>British Journal of Sociology of Education</i> | ND | Observation, interviews | School culture | (1) The note passing behaviour was identified as a gendered disciplinary technique that provides girls to adjust to a more disciplined behaviour than boys |

(continued)

Table A1.

Table A1.

| | Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|----|-------------------------------|--|--|----------------------------|--------------------------------|--|
| 30 | Hanushek <i>et al.</i> (2014) | CEES'0 conference paper | ND | PIAAC | School culture | (1) Teacher skills and student performance are strongly positively associated across countries, even after extensively controlling for student and family background, school inputs, institutional features of education systems and country-level factors |
| 31 | Jerrim <i>et al.</i> (2020) | <i>Learning and Instruction</i> | Cognitive load theory | PISA | School culture | (1) The enquiry-based instruction method (asking questions, checking homework) improved teenagers' performance in science examinations |
| 32 | Krskova and Baumann (2017) | <i>International Journal of Educational Management</i> | Growth model technological diffusion theories, endogenous growth theories, neoclassical theories of growth | PISA | Competitiveness School culture | (1) There was a relative importance of school discipline (88%) in comparison to education investment (12%) on educational performance, with both variables found to be significantly associated with competitiveness |
| 33 | Krskova (2015) | Maters of research Thesis of Macquarie University | Growth model technological diffusion theories, endogenous growth theories, neoclassical theories of growth | PISA, WEF | Competitiveness School culture | (1) Emphasised the importance of school discipline in comparison to education investment on educational performance, with both variables also found to be significantly associated with competitiveness |
| 34 | Krskova <i>et al.</i> (2020) | Book chapter of F.I.R.S.T: <i>Principles of Discipline for 21st Century Skills</i> | Human capital theory | Semi-structured interviews | School culture | (1) This chapter presented five principles of discipline based on an informed work of the 2000 winner of the Nobel Prize in Economics, James Heckman |
| 35 | Kline (2016) | Multicultural perspectives | A literature review | A literature review | Restorative practices | (1) This article reviewed the literature that shows how to use restorative practices as an alternative to punitive practices, to support a reduction in the number of referrals and suspensions in schools |

(continued)

| Source | Journal/book/theses | Theory | Data type | Emergent themes | Findings on discipline constructs |
|-----------------------------------|---|--|---|-----------------------|--|
| 36 Lawa <i>et al.</i> (2019) | <i>Jurnal Pendidikan Humaniora</i> | Theory of learning behaviourism | Observation, interviews | School culture | (1) School discipline highly depends on daily school activities such as morning ceremonies, spiritual activities and scout activities |
| 37 Lustick (2017) | <i>Race Ethnicity and Education</i> | A literature review | A literature review | School culture | (1) This article reviewed the existing literature on positive discipline policy and practice |
| 38 Losen (2014) | Book name is <i>Closing the School Discipline Gap: Equitable Remedies for Excessive Exclusion</i> | ND | Interviews, surveys, the National Centre for Education Statistics | School culture | (1) Identified several school policies and practices that lead generations of African American and Latino youth into the school-to-prison pipeline |
| 39 Martin and Smith (2017) | <i>Journal of Urban Learning, Teaching, and Research</i> | Critical race theory Crenshaw (1990) | The National Centre for Education Statistics | Racial disparities | (1) African American girls were at much higher risk of both grade retention and informal reports of discipline problems from teachers, even after controlling for family factors, school quality and teacher quality |
| 40 Mayworm <i>et al.</i> (2016) | <i>Journal of Educational and Psychological Consultation</i> | A literature review | A literature review | Restorative practices | (1) Developed a model for professional development to build teacher competency in restorative justice |
| 41 Mansfield <i>et al.</i> (2018) | <i>Educational Administration Quarterly</i> | ND | Interviews, Virginia Department of Education | Restorative practices | (1) The restorative practices reduce suspension and recidivism amongst students |
| 42 Murphy (2018) | Doctoral dissertation of the University of Southern California | Concerted cultivation theory, Wolterstoff's justice theory | Interviews, document analysis | Restorative practices | (1) The author identified institutional support as a major factor affecting the RJ practices |
| 43 Njoroge and Nyabuto (2014) | <i>Journal of Educational and Social Research</i> | Production theory | Questionnaires, interviews | Student discipline | (1) Identified several factors affecting student discipline |

(continued)

Table A1.

Table A1.

| | Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|----|---|--|---|---|-----------------------|--|
| 44 | Ning et al. (2015) | <i>School Effectiveness and School Improvement</i> | ND | PISA | School culture | (1) Classroom disciplinary climate significantly affects the reading performance amongst students |
| 45 | Ohlson et al. (2016) | <i>Journal of Education and Learning</i> | ND | Surveys | School culture | (1) When teacher collaboration increases, student suspensions decrease (2) When non-certified teachers within a school increased, the student suspension percentage increased |
| 46 | Okonofua and Eberhardt (2015) | <i>Psychological Science</i> | ND | National data on suspensions from schools | Racial disparities | (1) The racial disparities in suspension rates are even more stark for students who have been suspended two (or more) times as opposed to students who have been suspended a single time |
| 47 | Otara and Uwanyirigira (2018) | <i>Journal of Education Practice</i> | Glasser's choice theory | Questionnaires | School culture | (1) Preventive strategies, such as involving students in their own discipline management or physically removing materials that take away the attention of students, positively enhance discipline |
| 48 | Peguerio and Bracy (2015) | <i>Journal of Research on Adolescence</i> | ND | Educational Longitudinal Study of 2002 | Student discipline | (1) The strongest factor related to students dropping out of school is the formal school sanctions |
| 49 | Raffenbeul (2019) | Master of Science thesis of St. Cloud State University | Whole-child and community-school theory | Questionnaires, interviews | Restorative practices | (1) Restorative practices (such as skill-based procedures that connect the victim, offender and community in a way that allows empowerment and ownership) were identified as a viable alternative to traditional discipline procedures |
| 50 | Sortkar and Reimer (2018) | <i>School Effectiveness and School Improvement</i> | ND | PISA | School culture | (1) A significant association was found between the perceived classroom disciplinary climate of schools and students' mathematics performance across countries |

(continued)

| Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|--|--|---------------------------------|--|--------------------|---|
| 51 Sortkær and Reimer (2016) | Working paper of the Danish School of Education, Aarhus University | ND | PISA | School culture | (1) A statistically significant relationship between disciplinary climate and mathematics test achievement was found in Canada, Denmark and Norway amongst 15-year-old students (2) Small class size had a strong relationship between disciplinary climate and student achievement |
| 52 Semali and Vumilia (2016) | <i>World Journal of Education</i> | Glasser's choice theory | Document analysis, observations, field notes, interviews | Student discipline | (1) Teachers strongly suggested that school discipline improves the academic performance of the students (2) Parents strongly expect teachers to maintain proper school disciplinary levels |
| 53 Sandoval and Białowolski (2016) | <i>Asia Pacific Education Review</i> | Resilience theory of Breda 2001 | TIMSS | School culture | (1) In East Asia, positive student attitude to mathematics, teacher confidence in student performance and speaking the test language at home improved students' maths performance (2) In Hong Kong and Japan, no single factor was exclusively associated with socially disadvantaged students' success academically (3) Academic resilience, student academic expectations and the amount of time spent on mathematics homework in Singapore were more strongly associated with higher probabilities of academic success |
| 54 Ssenyonga et al. (2019) | <i>Child Abuse & Neglect</i> | ND | The Ministry of Education and Sports | Punishment | (1) Teacher training requires the integration of effective stress management, non-violent discipline strategies and attitude change into the curriculum |

(continued)

Table A1.

Table A1.

| Source | Journal/book/theses | Theory | Data type | Emerged themes | Findings on discipline constructs |
|--|--|--|--|--------------------|--|
| 55 Salgong et al. (2016) | <i>Journal of Education and Practice</i> | Theory of personality | Questionnaires, interviews | Student discipline | (1) Lack of guidance and counselling has contributed to indiscipline cases |
| 56 Schiff (2018) | <i>Contemporary Justice Review</i> | A literature review | A literature review | School culture | (1) The zero tolerance and other exclusionary discipline policies in schools cause mostly minority youth to enter what is now being called “the school-to prison pipeline” |
| 57 Thompson (2016) | Brigham Young University <i>Education and Law Journal</i> | Critical race theory, restorative justice theory | Florida State website | Student discipline | (1) The United States school-centric positive behaviour systems (such as eliminating discriminatory and punitive practices) reduces school-related arrests and suspensions |
| 58 Wandasari et al. (2019) | <i>International Journal of Scientific and Technology Research</i> | Miles and Hubberman’s theory 1994 | Interviews | Student discipline | (1) The School Literacy Movement Policy should be continued in state high schools as it improves student discipline |
| 59 Wang (2016) | <i>Asia Pacific Journal of Education</i> | ND | Semi-structured interviews, observations, policy documents | Student discipline | (1) School leaders demonstrated strong instructional leadership and visionary stewardship for school development |
| 60 Wambua (2017) | Master’s thesis of the University of Nairobi, Kenya | Systems theory by Ludwig | Questionnaires | Student discipline | (1) The schools with students involved in decision-making had a high discipline level |
| Source(s): Developed by the author | | | | | |

Please note the following acronyms in [Table A1](#)

- (1) ND in each section means “not discussed” or “not applicable”
- (2) TIMSS denotes “Trends in International Mathematics and Science Study” conducted by the International Association for the Evaluation of Educational Achievement
- (3) PIAAC denotes “Programme for the International Assessment of Adult Competencies”
- (4) PISA denotes “Programme for International Student Assessment”

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