

THE INFLUENCE OF STUDENT DISCIPLINE ON LEARNING ACHIEVEMENT: A CORRELATIONAL STUDY AMONG ELEMENTARY SCHOOL STUDENTS

Sri Suyatmi¹, Lulis Saidah¹, Putra Yudhistira Yusup¹, Dian Vitianingrum¹, Mint Husen Raya Aditama²

¹ SDIT Annajah Rumpin Bogor, Indonesia

² Universitas Negeri Manado, Indonesia

*Corresponding Author: husenmint@unima.ac.id

Received 11 November 2024; Received in revised form 29 December 2024; Accepted 25 January 2025

ABSTRACT

This study aims to analyze the relationship between student discipline and learning achievement in grade 5 elementary school students. This study uses a quantitative approach with comparative and correlational study methods that assess 31 students. The determination of the sample was carried out using the purposive sampling technique. Discipline assessment was carried out by 2 teachers and parents of students using validated instruments, while learning achievement was measured based on semester report card scores. The results of statistical analysis showed that there was a significant positive relationship between student discipline and learning achievement. The t-test score showed a significance of 0.000, which confirms the existence of a strong correlation between discipline and student learning outcomes. Although the correlation between discipline assessments from teachers and parents is not very high, the results of the study still show that students with high levels of discipline tend to have better learning achievement. These findings highlight the importance of implementing effective discipline strategies both at school and at home as an effort to improve student learning outcomes. The study concludes that discipline has an important role in shaping a conducive learning environment and supporting optimal academic achievement. The implication of this study is the need for cooperation between educators and parents in instilling discipline values from an early age to create a more qualified generation. Further research with a wider sample coverage as well as the exploration of additional factors such as motivation and learning strategies is suggested to reinforce these findings.

Keywords: student discipline, learning achievements, primary school, education

INTRODUCTION

Education is one of the main pillars in nation building which aims to create a quality generation. To achieve this goal, the learning process at school is very important, especially at the elementary school level which is the initial stage of character formation and mastery of basic knowledge. One of the factors that affects the success of the learning process is student discipline. Discipline is an attitude that reflects compliance with rules and responsibilities in carrying out duties. In the school environment, student discipline includes various aspects, such as arriving on time, obeying the rules, doing assignments given by the teacher, and maintaining concentration during learning. This disciplined attitude is considered the main foundation in creating a conducive learning environment. Student discipline has a significant impact on learning achievement through various mechanisms. Discipline affects the learning environment and behavior of individual students, which in turn affects academic outcomes. Discipline problems in the classroom, such as disruptive behavior, are directly and negatively related to student achievement. These issues also negatively impact student motivation, including self-perception of competence, anxiety facing exams, and student engagement (Arens et al., 2015a). A disruptive classroom climate hinders the learning process and lowers the achievement of the whole class (Blank & Shavit, 2016). Research shows that

learning disciplines have a major influence on learning outcomes, with a reported impact of 95.2% in one study (Melva Sitanggang et al., 2024). Additionally, disciplinary practices in the classroom, such as suspensions for disruptive behavior, can improve the academic performance of students who are not suspended, particularly in math (Hwang & Domina, 2021).

Student discipline is a multifaceted factor that significantly affects learning achievement. Research shows that effective discipline strategies can create a positive learning environment, increase student engagement, and foster self-regulation. These three elements have proven to have a central role in supporting better academic achievement (Day, 2018; Postholm, 2016). By implementing comprehensive disciplinary practices and fostering positive relationships between teachers and students, schools can maximize the potential of student achievement at various levels of education. Learning achievement is not only influenced by intellectual ability, but also by non-academic factors, such as discipline. Students who have discipline tend to show good study habits, such as effective time management, seriousness in completing tasks, and active involvement in the learning process. This is in line with the findings (Zimmerman, 2002) which emphasizes that self-regulation is an important determinant in effective learning. However, the reality on the ground shows that not all students have a good level of discipline. Many students arrive late for school, do not complete assignments on time, or even ignore school rules. This condition has a direct impact on decreasing their learning motivation and learning outcomes (Wentzel, 2003). According to Woolfolk (1978), students with low discipline often face difficulties in maintaining focus on the lesson, which then hinders academic achievement.

The importance of instilling the values of discipline from an early age is undeniable. In grade 5 elementary school students, the final stage of basic education is a crucial period before they continue to higher levels of education. The discipline applied at this stage can form long-term study habits. Therefore, examining the relationship between student discipline and learning achievement is a strategic step in improving the quality of education at the elementary school level. This study aims to analyze the extent to which student discipline affects their learning achievement. The results of this study are expected to make a significant contribution to efforts to improve the quality of education through the implementation of effective discipline strategies in elementary schools. Thus, the findings of this study are expected to be able to be a reference for educators in formulating disciplinary policies that suit the needs of students.

METHOD

The methodology used is quantitative with two approaches, namely comparative studies and correlation studies. Comparative studies are used to assess student discipline, where several subject teachers and guardians are involved in this initial stage. Next is the correlation study, the results obtained from the comparative study will then be used to find the relationship between student discipline and learning achievement. Significant and non-significant relationships will be a guideline in assessing how student discipline affects student achievement in school. The stages of the research can be seen below:

Studies 1

At this stage, the researcher, who is also a homeroom teacher, was assisted by subject teachers and guardians to assess the discipline of 31 5th grade students of SDIT Annajah Rumpin Bogor, taken based on purposive sampling techniques. Two subject teachers are involved in assessing student discipline which will later fill out the teacher survey sheet. Furthermore, the researcher sends a letter brought by the student to be given to his parents with the intention of assessing the learning discipline of their child (the student in question) while in the home environment, on the parent survey sheet.

Because this study is quantitative, the researcher does not actively involve students in data collection. Because of concerns about the vulnerability of ambiguity in students' reasoning on the questionnaire given.

Precisely with the third-person assessment in this study, through the role of parents and subject teachers, researchers can ensure the accuracy of the data obtained.

Studies 2

The data obtained in study 1 will be tested against the results of student learning achievement. A hypothesis test is carried out, where discipline will be directly proportional to achievement. Which, if the student's learning discipline is high, then the learning achievement is also high. Meanwhile, if the discipline is low, then the achievement will also be low. If a model imbalance is found in the hypothesis test, then there may be other factors that influence.

Research Instruments

The research instrument or questionnaire used in this study is an affective assessment scale to measure student discipline that has been developed and validated by Andyansyah, Ilham (2018). This instrument has been modified so that it is fit and proper for the needs of this research. The instrument used contains 39 statement items consisting of 4 aspects, namely discipline in entering school, discipline in attending lessons at school, discipline in school discipline, discipline in learning at home. The assessment item consists of two sources of assessors, namely the teacher as the assessor and the guardian's parents as the assessor. The initial validity before modification obtained a coefficient value of Cronbach's Alpha of 0.753. Meanwhile, after modification, Cronbach's Alpha score was obtained of 0.286.

RESULTS AND DISCUSSION

The Research Results and Discussion contains a description of the analysis of research results to provide answers / solutions to research problems. If there are details in accordance with the problems discussed, you can use the writing of sub-chapters as below.

Table 1. Demographic data

Demographics and summary Statistics Subjects who evaluate	Sum
Teacher	2
Parents of students	31
Student	31

Table 2. Summary of the results of the comparative statistical test of the assessor subjects

	Teacher 1	Teacher 2	Parents of students	Value
Cronbach's alpha (α)				0,286
Mean	126,35	123,77	36,35	86,30
Std. Dev. (SD)	9,09	21,94	5,19	2,71
t	31,403	77,390	38,977	
Sig. (2-tailed)	0,000	0,000	0,000	
N	31	31	31	

Based on the results of statistical analysis, this study found that there was a correlation between student discipline and academic achievement. The results of the statistical test showed that Cronbach's alpha (α) value was 0.286, which indicates the level of reliability of the instrument used in the study. The mean score of student discipline assessment by Teacher 1 is 126.35, by Teacher 2 is 123.77, and by parents is 36.35. Meanwhile, the mean score of students' academic scores is 86.30 with a standard deviation of 2.71. The t-test conducted resulted in a significance value (Sig. 2-tailed) of 0.000, which shows that the difference in

students' discipline scores has a significant relationship with their academic achievement. In addition, the results of the Pearson correlation test showed that the relationship between the discipline assessed by Teacher 1 and Teacher 2 had a correlation of 0.291, while the relationship between the discipline assessed by Teacher 2 and the parents was 0.079. Although the correlation is not very high, these data suggest that there is a significant relationship between disciplinary assessments and student academic achievement.

Studies 1

In this first stage, the results of the data will be presented which show that there is a significant relationship between the three disciplines that have been carried out by teacher 1, teacher 2 and parents related to student discipline behavior at school and also at home. There are two forms of data presentation, namely related to the high and low categories of student learning discipline and the results of correlation tests between assessors. The following will be conveyed below.

Table 3. Distribution of teacher assessment frequency 1 on student discipline

Teacher 1				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	61.00	1	3.2	3.2
	65.00	1	3.2	6.5
	99.00	3	9.7	16.1
	105.00	1	3.2	19.4
	106.00	1	3.2	22.6
	110.00	1	3.2	25.8
	118.00	1	3.2	29.0
	119.00	1	3.2	32.3
	122.00	1	3.2	35.5
	124.00	1	3.2	38.7
	126.00	1	3.2	41.9
	127.00	1	3.2	45.2
	128.00	1	3.2	48.4
	132.00	2	6.5	54.8
	134.00	1	3.2	58.1
	135.00	1	3.2	61.3
	136.00	2	6.5	67.7
	137.00	3	9.7	77.4
	144.00	2	6.5	83.9
	145.00	5	16.1	100.0
Total	31	100.0	100.0	

The distribution of Teacher 1 assessment frequency showed that 38.71% of students were in the very high category in discipline, 19.35% in the high category, 16.13% in the low category, and 25.81% in the very low category. These findings confirm that most students have a good level of discipline, although there are still students with discipline that needs to be improved. This data indicates that the learning environment in schools generally supports student discipline, but intervention is still needed for groups of students with low discipline.

 ORIGINAL ARTICLE

Table 4. Distribution of teacher assessment frequency 2 on student discipline

Teacher 2					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	103.00	1	3.2	3.2	3.2
	110.00	1	3.2	3.2	6.5
	115.00	3	9.7	9.7	16.1
	117.00	1	3.2	3.2	19.4
	118.00	1	3.2	3.2	22.6
	119.00	1	3.2	3.2	25.8
	120.00	1	3.2	3.2	29.0
	121.00	2	6.5	6.5	35.5
	125.00	1	3.2	3.2	38.7
	126.00	2	6.5	6.5	45.2
	127.00	1	3.2	3.2	48.4
	130.00	2	6.5	6.5	54.8
	132.00	3	9.7	9.7	64.5
	133.00	5	16.1	16.1	80.6
	134.00	2	6.5	6.5	87.1
	136.00	2	6.5	6.5	93.5
	138.00	1	3.2	3.2	96.8
	140.00	1	3.2	3.2	100.0
Total		31	100.0	100.0	

The results of the frequency distribution of Teacher 2 assessment showed that as many as 64.52% of students were in the high category, 35.48% were in the low category, and no students were included in the very high or very low category. This indicates that although most students have good discipline, there is still a sizable proportion in the low category, which can have an impact on their academic performance.

Table 5. Distribution of parental assessment frequency on student discipline

Parents of students					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	22.00	1	3.2	3.2	3.2
	26.00	1	3.2	3.2	6.5
	30.00	3	9.7	9.7	16.1
	32.00	1	3.2	3.2	19.4
	33.00	2	6.5	6.5	25.8
	34.00	1	3.2	3.2	29.0
	35.00	3	9.7	9.7	38.7
	37.00	5	16.1	16.1	54.8
	38.00	1	3.2	3.2	58.1
	39.00	7	22.6	22.6	80.6
	40.00	1	3.2	3.2	83.9
	41.00	2	6.5	6.5	90.3
	43.00	1	3.2	3.2	93.5
	45.00	1	3.2	3.2	96.8

 ORIGINAL ARTICLE

Parents of students				
	Frequency	Percent	Valid Percent	Cumulative Percent
46.00	1	3.2	3.2	100.0
Total	31	100.0	100.0	

The distribution of parental assessment frequency showed that 51.61% of students were in the high category, 22.58% in the low category, 16.13% in the very low category, and only 9.68% in the very high category. These results show that most parents rate their child's discipline quite well, although there are some who rate their child's discipline as still low. Categories of high and low student discipline trends based on teacher and parent assessments. Using the following references (Mardapi, 2008:123): Very high $X > (M+1\cdot SD)$, High $(M+1\cdot SD) > X \geq M$, Low $M > X \geq (M - 1\cdot SD)$, Very low $X < (M - 1\cdot SD)$.

Table 6. Categories of student discipline seen from teacher assessment 1

Categories	Class Interval	f	%
Very High	$> 135,44$	12	38,71
High	135,44 - 126,35	6	19,35
Low	126,35 - 117,26	5	16,13
Very Low	$< 117,26$	8	25,81

Table 7. Categories of student discipline seen from teacher assessment 2

Categories	Class Interval	f	%
Very High	$> 145,71$	0	0
High	145,71 - 123,77	20	64,52
Low	123,77 - 101,83	11	35,48
Very Low	$< 101,83$	0	0

Table 8. The category of student discipline is seen from the assessment of parents

Categories	Class Interval	f	%
Very High	$> 41,54$	3	9,68
High	41,54 - 36,35	16	51,61
Low	36,35 - 31,16	7	22,58
Very Low	$< 31,16$	5	16,13

Table 9. Categories of student grades on the 2024/2025 odd semester report card

Categories	Class Interval	f	%
Very High	$> 89,01$	5	16,13
High	89,01 - 86,30	8	25,81
Low	83,59 - 86,30	14	45,16
Very Low	$< 83,59$	4	12,90

Table 10. Correlation analysis of teacher and parent assessment results on student discipline

		Teacher 1	Teacher 2	Parent
Teacher 1	Pearson Correlation		1	.291
	Sig. (2-tailed)			.112
	N	31	31	31
Teacher 2	Pearson Correlation	.291	1	.079

		Teacher 1	Teacher 2	Parent
Parent	Sig. (2-tailed)	.112		.672
	N	31	31	31
	Pearson Correlation	.068	.079	1
	Sig. (2-tailed)	.716	.672	
	N	31	31	31

Studies 2

At this stage, we will display the results of the categorization of the level of student discipline by looking at the score that has been given by the assessor by comparing it with the student learning outcomes at the end of the odd semester report of the 2024/2025 school year.

Table 11. Comparison of the categorization of student discipline assessment with learning outcomes

No	Student	Student Discipline Categories (Teacher 1)	Student Discipline Categories (Teacher 2)	Student Discipline Categories (Parents)	Semester Value Category
1	AD	Very High	High	Low	Low
2	AT	Low	High	High	Very Low
3	AA	Very High	Low	Low	High
4	AY	Very High	High	Very Low	High
5	AK	Low	High	High	Low
6	AAG	Very Low	Low	Low	Low
7	AN	Very High	Low	Very Low	Low
8	NT	Very Low	Low	Low	Very Low
9	CC	Very High	High	High	High
10	DM	High	Low	Low	High
11	DAJ	High	High	Low	Low
12	FAA	Low	High	High	Low
13	FAR	Very Low	High	High	High
14	FAW	Very High	High	Very Low	Very High
15	FDK	High	Low	High	Low
16	KEM	Very High	High	High	Very High
17	KAR	Very High	Low	High	Very High
18	KNE	Very High	Low	Very High	High
19	LPM	Low	High	Very High	Very High
20	MG	Very Low	Low	High	Low
21	MAA	Very Low	High	Very Low	Low
22	MAF	High	High	High	Low
23	MIGP	High	High	High	Very Low
24	NAH	Very High	High	Very High	Very High
25	NKH	Very Low	Low	Low	Low
26	RKP	Very Low	Low	High	Very Low
27	SKR	High	High	Very Low	Low
28	SWSR	Low	High	High	High
29	SRJ	Very High	High	High	Low
30	TQZ	Very High	High	High	High

No	Student	Student Discipline Categories (Teacher 1)	Student Discipline Categories (Teacher 2)	Student Discipline Categories (Parents)	Semester Value Category
31	ZNA	Very Low	High	High	Low

Differences in discipline assessments between teachers and parents may reflect differences in standards and expectations in school and home environments. Parents may pay more attention to aspects of discipline at home, such as study habits and adherence to schedules, while teachers focus more on discipline in the classroom, such as involvement in learning and adherence to school rules. Therefore, a more comprehensive approach is needed in instilling consistent disciplinary values in both environments.

The Relationship Between Student Discipline and Academic Achievement

Strong discipline identification is associated with a more in-depth, less complaining, and higher achievement learning approach, while weaker discipline identification is associated with a more superficial, more complaining, and lower achievement learning approach (Taylor Bunce et al., 2022). Discipline problems in the classroom are directly and negatively related to achievement and all the motivational constructions considered, and this relationship is mediated by verbal achievement (Arens et al., 2015b). Teacher-student relationships have a significant correlation with student motivation, academic performance, and discipline (Mikk et al., 2016). Teacher practices that offer more instructional and social-emotional support are associated with higher academic achievement, greater behavioral improvements, and a more positive perception of academic ability in students (Perry et al., 2007). The impact of teachers on student achievement continues into the early elementary grades and significantly affects reading and math achievement, which suggests that teachers are indeed important and significantly affect student achievement over time (Konstantopoulos, 2011).

Teacher-student relationships play an important role in the learning experience and student achievement (Wubbels et al., 2016b). Good teacher-student relationships stimulate learning behaviors and support students in coping with the demands of the school context, while negative relationships hinder students' efforts to cope with the demands of the school (Wubbels et al., 2016b). Implementing positive behavior support throughout the school can reduce discipline problems and improve academic outcomes. This approach includes improving instructional methods, formulating behavioral expectations, increasing student engagement in the classroom, reinforcing positive performance, and monitoring success through data-driven evaluations (Luiselli et al., 2005).

The Role of Teacher Quality and Teacher-Student Relationships in Academic Achievement

Teacher quality indirectly affects student learning outcomes by affecting student motivation, engagement, and self-discipline. A good teacher-student relationship can stimulate learning behavior and support students in facing school demands, thereby improving affective and cognitive outcomes (Christophersen et al., 2010; Wubbels et al., 2016a). Engagement is an important mediator between discipline and achievement. Higher levels of student engagement, fostered by a supportive teaching environment, result in better academic performance. Engagement helps students cope with academic anxiety and develop a sense of belonging, which contributes to higher academic success (Deng, 2021; Pino-James et al., 2019; Tomaszewski et al., 2020).

A student's micro-level academic achievement is related to gender, motivation, family characteristics, school variables, and economic and cultural characteristics of a country (Chiu & Chow, 2015). The relationship between teacher-student relationship and academic achievement is influenced by geographic region, with some regions showing a positive impact of teacher-student relationship on academic achievement (Mikk et al., 2016). Broadly speaking, the results of this study show that there is a significant

relationship between student discipline and their learning achievement. High discipline tends to be associated with better academic achievement, as shown in various previous studies. These findings reinforce the theory that discipline is one of the key factors in creating a conducive learning environment and supporting academic achievement. This study uses assessments from teachers and parents, which can provide a more comprehensive perspective related to student discipline, both at school and at home. Based on the statistical analysis carried out, it shows a reliable correlation between discipline and learning achievement, thus strengthening the validity of the research results. Where this research was conducted on 5th grade elementary school students, which is a crucial stage in the formation of learning habits. Therefore, the results can be used as a basis for designing more effective learning strategies.

The limitation of this study lies in the limited number of samples used, namely only 31 students in one school, so the generalization of the research results to a wider population still needs to be studied further. The study also relied solely on assessments from teachers and parents without considering students' own perceptions of their discipline, which could provide additional insights. Other factors that have the potential to affect academic achievement, such as intrinsic motivation, social environment, and teaching methods, are not the focus of this study, so the causal relationship has not been fully ascertained.

CONCLUSION

This study concluded that there was a significant positive relationship between student learning discipline and academic achievement. Students who are more disciplined tend to have better performance compared to students who are less disciplined. Discipline plays a role as a factor that helps students manage their study time, comply with academic rules, and increase involvement in the learning process. The psychological impact of student discipline on student learning achievement is mediated by teacher-student relationships and student motivation. Teacher-student relationships have a significant impact on academic performance and student discipline. Further, the teacher's impact on student achievement continues into the early elementary grades, which emphasizes the teacher's long-term influence on student learning. To increase external validity, future research should involve more schools and students from different backgrounds. Subsequent research can add data from the students themselves to get a more complete picture of the learning discipline. Further studies can explore additional factors that can interact with discipline in determining learning achievement, such as motivation, learning strategies, and the role of teachers. This research has important implications in the world of education, especially in designing effective disciplinary policies. The results of the research can be used by educators and policymakers to develop more discipline-based learning strategies to improve student academic achievement. In addition, this study also underlines the importance of the involvement of teachers and parents in instilling discipline values in students from an early age. With a more holistic approach, the world of education can create a more responsible and accomplished generation in the future.

REFERENCES

Andyansyah, Ilham (2018) Pengembangan instrumen penilaian afektif berbasis Google Form untuk mengukur kedisiplinan siswa dalam pembelajaran Pendidikan Agama Islam kelas VII SMP Nahdlatul 'Ulama Pakis. Undergraduate thesis, Universitas Islam Negeri Maulana Malik Ibrahim. Diakses pada Kamis, 28 November 2024 pada laman: <http://etheses.uin-malang.ac.id/id/eprint/10333>

Arens, A. K., Morin, A. J. S., & Watermann, R. (2015a). Relations between classroom disciplinary problems and student motivation: Achievement as a potential mediator? *Learning and Instruction*, 39, 184–193. <https://doi.org/10.1016/j.learninstruc.2015.07.001>

Arens, A. K., Morin, A. J. S., & Watermann, R. (2015b). Relations between classroom disciplinary problems and student motivation: Achievement as a potential mediator? *Learning and Instruction*, 39, 184–193. <https://doi.org/10.1016/j.learninstruc.2015.07.001>

Blank, C., & Shavit, Y. (2016). The Association Between Student Reports of Classmates' Disruptive Behavior and Student Achievement. *AERA Open*, 2(3). <https://doi.org/10.1177/2332858416653921>

Chiu, M. M., & Chow, B. W.-Y. (2015). International comparisons of student achievement. In *Progress in Education* (Vol. 32, pp. 93–108). Nova Science Publishers, Inc. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84961326452&partnerID=40&md5=62b782c7edf743722c25587267bf380b>

Christophersen, K.-A., Elstad, E., & Turmo, A. (2010). Is teacher accountability possible? the case of norwegian high school science. *Scandinavian Journal of Educational Research*, 54(5), 413–429. <https://doi.org/10.1080/00313831.2010.508906>

Day, E. (2018). Commentary on Jones *et al.* (2018): An inconvenient truth—complex problems require complex solutions. *Addiction*, 113(2), 287–288. <https://doi.org/10.1111/add.14070>

Deng, S. (2021). Comparing Students' Engagement in Classroom Education Between China and Germany. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.754637>

Hwang, N., & Domina, T. (2021). PEER DISRUPTION AND LEARNING: LINKS BETWEEN SUSPENSIONS AND THE EDUCATIONAL ACHIEVEMENT OF NON-SUSPENDED STUDENTS. *Education Finance and Policy*, 16(3), 443 – 463. https://doi.org/10.1162/edfp_a_00308

Konstantopoulos, S. (2011). Teacher effects in early grades: Evidence from a randomized study. *Teachers College Record*, 113(7), 1541–1565. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-80054023848&partnerID=40&md5=aa3cf00786be9cc85c7727badecda833>

Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive behaviour support: Effects on student discipline problems and academic performance. *Educational Psychology*, 25(2–3), 183–198. <https://doi.org/10.1080/0144341042000301265>

Melva Sitanggang, H. D., Raja, E. A. L., & Raja, T. H. L. (2024). The Influence of Learning Discipline and Environment on Learning Outcomes at the Institut Bisnis Dan Komputer Indonesia. *Journal of Ecohumanism*, 3(4), 1748–1758. <https://doi.org/10.62754/joe.v3i4.3706>

Mikk, J., Krips, H., Säälik, Ü., & Kalk, K. (2016). Relationships Between Student Perception of Teacher-Student Relations and PISA Results in Mathematics and Science. *International Journal of Science and Mathematics Education*, 14(8), 1437 – 1454. <https://doi.org/10.1007/s10763-015-9669-7>

Perry, K. E., Donohue, K. M., & Weinstein, R. S. (2007). Teaching practices and the promotion of achievement and adjustment in first grade. *Journal of School Psychology*, 45(3), 269 – 292. <https://doi.org/10.1016/j.jsp.2007.02.005>

Pino-James, N., Shernoff, D. J., Bressler, D. M., Larson, S. C., & Sinha, S. (2019). Instructional interventions that support student engagement: An international perspective. In *Handbook of Student Engagement Interventions: Working with Disengaged Students*. <https://doi.org/10.1016/B978-0-12-813413-9.00008-5>

Postholm, M. B. (2016). Experienced Teachers Reflecting on Challenging Situations in School. *Creative Education*, 07(09), 1314–1327. <https://doi.org/10.4236/ce.2016.79136>

Taylor Bunce, L., Bennett, M., & Jones, S. E. (2022). The Relation Between Discipline Identity and Academic Achievement Within a Marketized Higher Education Context: A Serial

Mediation Model of Approaches to Learning and Course Complaints. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.749436>

Tomaszewski, W., Xiang, N., & Western, M. (2020). Student engagement as a mediator of the effects of socio-economic status on academic performance among secondary school students in Australia. *British Educational Research Journal*, 46(3), 610 – 630. <https://doi.org/10.1002/berj.3599>

Wentzel, K. R. (2003). Sociometric Status and Adjustment in Middle School: A Longitudinal Study. *The Journal of Early Adolescence*, 23(1), 5–28. <https://doi.org/10.1177/0272431602239128>

Woolfolk, A. E. (1978). Student learning and performance under varying conditions of teacher verbal and nonverbal evaluative communication. *Journal of Educational Psychology*, 70(1), 87–94. <https://doi.org/10.1037/0022-0663.70.1.87>

Wubbels, T., Brekelmans, M., Mainhard, T., Den Brok, P., & Van Tartwijk, J. (2016a). Teacher–Student Relationships and Student Achievement. In *Handbook of Social Influences in School Contexts: Social-Emotional, Motivation, and Cognitive Outcomes* (pp. 127–142). Taylor and Francis. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85016175687&partnerID=40&md5=74a7c64b547ae2975904c40d84b5464c>

Wubbels, T., Brekelmans, M., Mainhard, T., Den Brok, P., & Van Tartwijk, J. (2016b). Teacher–Student Relationships and Student Achievement. In *Handbook of Social Influences in School Contexts: Social-Emotional, Motivation, and Cognitive Outcomes*. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85016175687&partnerID=40&md5=74a7c64b547ae2975904c40d84b5464c>

Zimmerman, B. J. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory Into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2