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Teacher Turnover and Student Learning in Primary Schools in Novena, Singapore

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Abstract

The school system is vulnerable to the loss of skilled instructors due to high rates of teacher turnover. Teacher turnover can have significant implications for educational institutions and the learning experiences of students. Long-term relationships between students and their teachers are vital for creating a supportive and engaging learning environment. . Students may struggle with adjusting to new teachers and coping with the changes, potentially impacting their emotional well-being. Frequent turnover disrupts the ability to implement and sustain long-term improvement strategies, hindering the overall progress of the school. The study employed the descriptive research design. The target population was 40 Primary Schools in Novena, Singapore. The study did sampling of 30 respondents that were selected from the target population of 40 Primary Schools in Novena, Singapore. The collection of data was conducted through stratified random sampling whereby questionnaires were used to gather data. The study concluded that teacher turnover can negatively affect student learning in several ways since frequent changes in teaching staff can lead to a loss of instructional continuity. Each teacher brings their unique teaching style, rapport with students, and knowledge base. When teachers leave, it takes time for new teachers to adjust, understand the needs of their students, and develop effective teaching strategies. New teachers may require additional support and training, which could impact the overall quality of instruction and potentially lead to gaps in students' understanding. The study recommended that schools should focus on implementing effective strategies to attract and retain highly qualified and motivated teachers. Developing comprehensive induction and mentorship programs for new teachers can help them acclimate to the school environment, curriculum, and teaching practices more effectively. Pairing new teachers with experienced mentors can provide valuable guidance, support, and opportunities for collaboration.

Keywords: *Teacher Turnover, Student Learning, Primary Schools, Singapore*

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1.0 Background of the Study

Teacher turnover refers to the rate or frequency at which teachers leave their positions and are replaced by new teachers in an educational institution or system (Räsänen, Pietarinen, Pyhältö, Soini & Väisänen, 2020). It represents the movement or turnover of teaching staff, typically measured over a specific time period, and can be influenced by factors such as retirements, resignations, transfers, and the hiring of new teachers. Teacher turnover can have significant implications for educational institutions and the learning experiences of students, including disruptions to instructional continuity, changes in teaching styles and approaches, and potential impacts on student achievement and school culture (Carver-Thomas & Darling-Hammond, 2019). Teacher turnover disrupts instructional continuity, as each teacher brings their unique teaching style, rapport with students, and instructional strategies. When teachers leave, it takes time for new teachers to adjust, understand the needs of their students, and develop effective teaching approaches. This transition period can result in disruptions to the learning process, potentially impeding students' progress.

Ryu and Jinnai (2021) reported that experienced and well-trained teachers possess subject expertise, effective pedagogical techniques, and familiarity with the curriculum. When experienced teachers leave, their expertise and institutional knowledge are lost. New teachers may require additional support and training, impacting the overall quality of instruction and potentially leading to gaps in students' understanding. Long-term relationships between students and their teachers are vital for creating a supportive and engaging learning environment (Alam, 2022). When teachers leave, students may experience feelings of loss, instability, and disconnection. This can impact their motivation, engagement, and overall academic performance. Students may struggle to develop a sense of trust and connection with new teachers, which can hinder their learning experience. Teacher turnover can have emotional implications for students (Gilmour & Wehby, 2020). The departure of a beloved teacher can cause distress and a sense of loss. Students may struggle with adjusting to new teachers and coping with the changes, potentially impacting their emotional well-being. This emotional disruption can influence their ability to focus, participate, and excel academically.

Building strong relationships between teachers and students is crucial for effective teaching and learning. When teachers leave, these relationships are interrupted, and students may need to establish new connections with unfamiliar teachers (Akram, 2019). This process can be challenging and may hinder the development of a positive and supportive learning environment. The impact of teacher turnover on student achievement and progress is a matter of concern. Disruptions caused by frequent changes in teachers can impede students' ability to meet academic goals, acquire new skills, and make steady progress in their learning journey. This can have long-term effects on their educational outcomes. Teacher turnover can exacerbate educational disparities, particularly for vulnerable student populations. Students who already face challenges in their learning, such as those from low-income backgrounds or with special educational needs, may be particularly susceptible to the negative effects of teacher turnover (Ondrasek, Carver-Thomas, Scott & Darling-Hammond, 2020). The lack of stability and consistent support from experienced teachers can widen the achievement gap. Each teacher develops their own classroom

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management techniques and establishes rules and expectations. When teachers leave, it requires time for new teachers to establish effective classroom management strategies. This transition period can lead to disruptions and challenges in maintaining a conducive learning environment.

High teacher turnover can increase the workload and stress on remaining teachers (Räsänen, Pietarinen, Pyhältö, Soini & Väisänen, 2020). They may be required to take on additional responsibilities, such as mentoring new teachers or covering vacant positions. This added pressure can impact their ability to focus on individual student needs and may result in decreased instructional effectiveness. Teachers play a significant role in shaping the school culture and fostering a positive learning environment. Paulsrud and Nilholm (2020) noted that when teachers frequently leave, it can disrupt the established school culture, values, and shared sense of purpose. The continuity of the school's vision and mission may be compromised, impacting the overall atmosphere and cohesion within the school community. Teacher turnover can also affect parental involvement in students' education. Parents often build relationships with their child's teachers and rely on their expertise and guidance. When teachers leave, it may disrupt this relationship, impacting parental engagement and communication with the school. Teacher turnover can impede long-term school improvement efforts. Building a culture of continuous improvement requires a stable teaching force that can contribute their knowledge and experience over time (Schaack, Le & Stedron, 2020). Frequent turnover disrupts the ability to implement and sustain long-term improvement strategies, hindering the overall progress of the school.

Hence, the impact of teacher turnover on student learning in primary schools in Novena, Singapore encompasses various dimensions. From instructional continuity to student engagement, emotional well-being, and academic achievement, the consequences of frequent teacher departures are significant. Podolsky, Kini, Darling-Hammond and Bishop (2019) mentioned that addressing this issue requires comprehensive strategies to attract and retain teachers, provide support for new teachers, foster positive relationships, and promote a stable and conducive learning environment. By prioritizing teacher retention and stability, primary schools in Novena can minimize the adverse effects of teacher turnover and enhance student learning outcomes.

1.1 Statement of the Problem

The impact of teacher turnover on student learning in primary schools in Novena, Singapore presents a significant problem that can hinder educational outcomes and student development. Teacher turnover refers to the rate at which teachers leave their positions and are replaced by new teachers. When primary schools in Novena experience frequent teacher departures, it disrupts the stability and continuity of education, impacting the academic progress and overall learning experience of students. The problem lies in the potential negative consequences that arise from teacher turnover, including the loss of instructional continuity, the impact on the quality of instruction, and the emotional well-being and engagement of students. The constant cycle of new teachers entering the classrooms requires time for adjustment, leading to potential disruptions in learning and hindrance in students' ability to reach their full potential. Therefore, addressing the issue of teacher turnover is crucial to ensure a nurturing and conducive learning environment that promotes optimal student learning outcomes in primary schools in Novena, Singapore.

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2.0 Literature Review

Ismoilovich (2021) reported that children are the United States' most valuable resource, and they are at risk due to problems including a high teacher turnover rate and poor academic achievement. The primary objective of our nation's educational system is to generate literate citizens who can contribute to and benefit from a globalized economy and society. Recruiting and retaining excellent educators is more crucial than ever if the United States is to provide its youth with the critical thinking and Student Learning abilities necessary to succeed in the modern economy. The aim of this study is to examine whether student achievement declines when teachers often change positions. Moreover, recent data challenges the common belief among researchers and policymakers that teacher turnover is detrimental to student outcomes. Simpson (2021) research assesses the impacts of teacher turnover on over 550,000 student observations across 5th and 6th grade in California over a 6-year period using a novel identification technique based on grade-level turnover and two classes of fixed-effects models. The findings show that schools with a larger concentration of low-achieving and black children also have a higher rate of grade-level turnover, which has a negative effect on kids' performance in both English Language Arts and Mathematics. The findings also indicate that teacher turnover has an impact beyond only altering the overall quality of the teaching staff.

Givhan (2019) found out that in real world, it seems that student learning suffers when teachers leave their positions. However, given a policy framework in which low-performing teachers can be precisely identified and replaced with more effective instructors, some simulations imply that turnover may have huge beneficial benefits. This research investigates this subject by analyzing the impact of teacher turnover on learner outcomes under IMPACT, DCPS's innovative performance-evaluation and reward program. Using data from the first few years of IMPACT and a quasi-experimental design, we determine that when DCPS replaced departing science instructors with new ones, student performance rose by 0.09 SD on average. Student success increases by greater and statistically significant amounts when we isolate the impacts of lower-performing instructors who were driven to leave DCPS for poor performance. Teachers who leave without being disciplined via IMPACT, on the other hand, tend to have a negative but statistically insignificant impact on student achievement.

Kongcharoen, Onmek, Jandang and Wangyisen (2020) conducted study on teacher satisfaction with the profession, teacher turnover and its causes, and the impact of teacher turnover on learners achievement at Bangkok's public secondary schools were all topics of inquiry. There were two types of sample methods used: basic random and stratified. Schools in both urban and rural locations were selected using stratified selection, and 200 participants were chosen using simple random sampling. Documentary research, questionnaires, and in-person interviews were used to compile the data. The chi-square test, frequency tables, bar charts, and pie charts were generated using SPSS and Microsoft Excel. The results showed that teachers' motivations, expectations, levels of job satisfaction, and career aspirations varied. Most educators chose to become teachers because they were passionate about the field, while others did it out of need or temporary necessity. Some educators said that their work meant far more to them than the salary they were paid. The rise in job satisfaction attributable to this newfound freedom of choice bodes well for the continued

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pursuit of the same professional path. The research confirmed the presence of teacher turnover due to socio-economic and political issues in the region. The loss of experienced educators has been linked to a drop in student achievement. The study's findings suggest that the government should provide instructors with adequate living quarters, overtime compensation for additional tasks, and supporting regulations.

Sorensen and Ladd (2020) in their study noted that teachers play an important part in the education industry since they shape the lives of their pupils. It has been noted that there is a high rate of teacher turnover in certain schools. The effects of teacher turnover on learners' achievement are the focus of this study. The researcher analyzed the impacts of teacher turnover on learners' performance at the private institutions in Peshawar, Pakistan. The study used the prior teacher turnover records from two private universities chosen at random. Both Preston University and City University of Science and Information Technology in Peshawar, Pakistan, fall under this category. In this study, both descriptive statistics and correlation analysis was used. Students' motivation, academic performance, and mental health all take a hit when their teachers often change. Given that the student's motivation and performance are positively correlated, it follows that the student's psyche plays a role in both the positive and negative relations between the three variables. This means that even if the learner is motivated and doing well, he/she still takes on and perceives things that cause burden, tension, and depression.

Bocsi, Ceglédi, Kocsis, Kovács, Kovács, Müller and Tóth (2019) performed research to determine the impact of teacher turnover on student achievement in Puskas secondary schools from the viewpoints of school administrators, classroom teachers, and students. Descriptive survey research was used for this study. 20 out of 60 Puskas' secondary schools were selected for the study, and the researchers there calculated the impact of teacher turnover there. In all, 457 pupils and 20 principals were engaged. Stratified random sampling was used to get the study's sample. Questionnaires, a document analysis guide, and interviews were used to compile the data. Tables of frequency distribution, measures of central tendency, and percentages were used to examine the data. The survey found that the most common reasons for leaving a teaching position were dissatisfaction with working circumstances, a lack of a reliable public transportation system, inadequate health care services, maternity leave policies, and low job security. Teacher shortages, insufficient covering of course material, negative impacts on students' academic achievement, interrupted lessons and scuttled lesson plans, extra work for remaining teachers, and tarnished reputations were cited as the most common negative outcomes of high teacher turnover. Therefore, it is imperative that governing bodies address this turnover and give schools back the respect and honor they were originally meant to have. This necessitates the implementation of plans for the completion of tasks, the uniformity of initial behaviors, and the enforcement of workplace discipline.

Greenham, Harris, Hollett and Harris (2019) conducted research which helps to fill in the gaps between teacher turnover and student achievement. This study was expanded by investigating the processes by which staff turnover has an impact on students' education and by presenting evidence of the measures taken by schools to counteract the negative consequences of this phenomenon. Administrative data was used on all public school learners and teachers in Finland at age 16, researchers discovered that an increase in the number of new teachers entering the profession had

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a tiny but statistically significant negative influence on students' ultimate credentials after 16 years of compulsory education. This is the first research to show that a key way in which teacher turnover affects student achievement is via the introduction of new instructors who lack the necessary school-specific human capital. It was also shown that schools lessen the impact of turnover by putting their new instructors in classes with fewer students at danger of failing.

Garcia, Slate and Delgado (2019) conducted study on a subset of public elementary schools in Västra Götaland County, Sweden, the study aimed to better understand teacher turnover, identify the factors that contribute to that turnover, and analyze how that turnover affects students' access to a high-quality education. The research was conducted using the Two Factor Model. The study asked for responses from 200 primary school teachers and administrators. Primary and secondary data were collected by questionnaires, interviews, a study of relevant documents, and participant observation. The acquired data was processed by SPSS for sorting, cleaning, editing, and coding. The study's results are given in tables after being analyzed statistically using percentages and frequencies. One or two instructors leave their positions annually on average, suggesting a low rate of turnover among educators in Västra Götaland County. The survey also found that there is a scarcity of instructors in Västra Götaland County, with just eight to fifteen teachers assigned to each school. Primary school teachers in Västra Götaland County have been leaving their jobs in large numbers due to dismal working conditions, low pay, harassment, and mounting debt. There were several suggestions offered, which are as follows: New teachers would benefit greatly from mentorship programs that should be made available by school administrations. The government should also provide incentives to elementary school teachers to encourage them to continue working in a challenging setting. In addition, the government has to pay teachers a fair wage.

3.0 Research Methodology

The study used the descriptive research design. The target population was 40 Primary Schools in Novena, Singapore. The study did sampling of 30 respondents that were selected from the target population of 40 Primary Schools in Novena, Singapore. The collection of data was conducted through stratified random sampling whereby questionnaires were used to gather data.

4.0 Research Findings and Discussion

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4.1 Correlation Analysis

The findings presented in Table 1 shows the correlation analysis

Table 1: Correlation Analysis

		Student Learning	Teacher Turnover
Student Learning	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Teacher Turnover	Pearson Correlation	.301 **	
	Sig. (2-tailed)	0.000	0.000

The correlation results from Table 1 show that the teacher turnover was positively and significantly associated with student learning ($r=.301$, $p=.000$). This concurs with Kongcharoen, Onmek, Jandang and Wangyisen (2020) noted that the presence of teacher turnover was due to socio-economic issues and loss of experienced teachers was linked to a drop in student achievement.

4.2 Regression Analysis

The section includes model fitness, analysis of variance and regression of coefficient. The results in Table 2 indicate the model fitness

Table 2: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.301a	0.208	0.131	0.0013352

The results from Table 2 reveal that teacher turnover was found to be satisfactory in explaining the student learning in Primary Schools in Novena, Singapore. This was supported by the coefficient of determination, which is R square of 0.208. It shows that teacher turnover explain 20.8% of the variations in the student learning in Primary Schools in Novena, Singapore.

Table 3: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.84	1	4.84	27.82	.000b
	Residual	6.96	40	0.174		
	Total	11.80	39			

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The findings in Table 3 shows that the overall model was statistically significant. The results reveals that student learning is a good predictor in explaining the teacher turnover among the Primary Schools in Novena, Singapore. This was supported by an F statistic of 27.82 and the reported p-value of 0.000 which was less than the conventional probability significance level of 0.05.

Table 4: Regression of Coefficient

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.331	0.105		3.152	0.071
Teacher Turnover	0.556	0.201	0.712	2.766	0.002

Based on the results in Table 4, it was found that teacher turnover was positively and significantly associated to student learning ($\beta=0.556$, $p=0.002$). This was supported by a calculated t-statistic of 2.766 that is larger than the critical t-statistic of 1.96. These results implies that when teacher turnover increases by one unit, the student learning in primary schools in Novena, Singapore will increase by 0.556 units while other factors that influence the student learning in primary schools remain unchanged. Bócsi, Ceglédi, Kocsis, Kovács, Kovács, Müller and Tóth (2019) argued that teacher shortages, insufficient covering of course material, negative impacts on students' academic achievement, interrupted lessons and scuttled lesson plans, extra work for remaining teachers, and tarnished reputations were cited as the most common negative outcomes of high teacher turnover.

5.0 Conclusion

The impact of teacher turnover on student learning in primary schools in Novena, Singapore is a significant concern that can have far-reaching consequences. Novena, located in the central area of Singapore, is known for its vibrant community and proximity to numerous primary schools. However, when teachers frequently leave their positions, it disrupts the stability and continuity of education for students. Teacher turnover can negatively affect student learning in several ways since frequent changes in teaching staff can lead to a loss of instructional continuity. Each teacher brings their unique teaching style, rapport with students, and knowledge base. When teachers leave, it takes time for new teachers to adjust, understand the needs of their students, and develop effective teaching strategies. This transition period can result in disruptions to the learning process and hinder students' progress.

Teacher turnover can impact the quality of instruction. Experienced and well-trained teachers often possess in-depth subject knowledge, effective pedagogical techniques, and familiarity with the curriculum. When experienced teachers leave, their expertise and institutional knowledge are lost. New teachers may require additional support and training, which could impact the overall quality of instruction and potentially lead to gaps in students' understanding. Furthermore, teacher

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turnover can affect the emotional well-being and engagement of students. Long-term relationships between students and their teachers are essential for creating a supportive and nurturing learning environment. When teachers leave, students may experience feelings of loss, instability, and disconnection. This can impact their motivation, engagement, and overall academic performance.

Addressing the impact of teacher turnover requires proactive measures. Providing comprehensive support and mentorship programs for new teachers can help them acclimate to their roles more effectively. Offering professional development opportunities, such as workshops and training sessions, can enhance the skills and knowledge of both new and experienced teachers. Creating a positive work environment with competitive salaries, opportunities for growth, and recognition can contribute to higher teacher job satisfaction and retention rates. The impact of teacher turnover on student learning in primary schools in Novena, Singapore should not be underestimated. The disruption caused by frequent teacher departures can impede instructional continuity, impact the quality of instruction, and affect student engagement. By implementing strategies to support and retain teachers, schools can strive to create a stable and nurturing learning environment that promotes optimal student learning outcomes.

6.0 Recommendations

Schools should focus on implementing effective strategies to attract and retain highly qualified and motivated teachers. This includes providing competitive salaries and benefits, opportunities for professional growth, and a positive work environment that recognizes and values teachers' contributions. By investing in teacher well-being and job satisfaction, schools can reduce the likelihood of turnover. Developing comprehensive induction and mentorship programs for new teachers can help them acclimate to the school environment, curriculum, and teaching practices more effectively. Pairing new teachers with experienced mentors can provide valuable guidance, support, and opportunities for collaboration. Regular feedback and professional development opportunities should be integrated into these programs to further enhance teaching skills and knowledge. Creating a collaborative and supportive school culture can contribute to reduced teacher turnover and improved student learning. Encouraging collaboration among teachers, such as lesson planning, sharing best practices, and peer observations, fosters a sense of belonging and professional growth. Providing opportunities for teachers to engage in collaborative decision-making processes and participate in school improvement initiatives can also enhance their commitment to the school community.

Open and transparent communication channels between school leaders, teachers, and parents can help address concerns and build trust. Regular Student communication facilitate a better understanding of teachers' needs, challenges, and aspirations. School leaders should actively seek feedback from teachers and provide support accordingly. Engaging parents in the education process through effective communication can also contribute to student success and teacher retention. Continuous professional development opportunities should be provided to all teachers to enhance their instructional skills, subject knowledge, and pedagogical approaches. Schools can organize workshops, seminars, and training sessions on current educational practices, innovative teaching methodologies, and the effective use of technology in the classroom. By investing in teachers' professional growth, schools can improve their job satisfaction and overall effectiveness.

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REFERENCES

- Akram, M. (2019). Relationship between Students' Perceptions of Teacher Effectiveness and Student Achievement at Secondary School Level. *Bulletin of Education and Research*, 41(2), 93-108.
- Alam, A. (2022). Social robots in education for long-term human-robot interaction: Socially supportive behaviour of robotic tutor for creating robo-tangible learning environment in a guided discovery learning interaction. *ECS Transactions*, 107(1), 12389. <https://doi.org/10.1149/10701.12389ecst>
- Bocsi, V., Ceglédi, T., Kocsis, Z., Kovács, K. E., Kovács, K., Müller, A., ... & Tóth, D. A. (2019). The discovery of the possible reasons for delayed graduation and dropout in the light of a qualitative research study. *Journal of Adult Learning, Knowledge and Innovation*, 3(1), 27-38. <https://doi.org/10.1556/2059.02.2018.08>
- Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How teacher attrition affects students and schools. *Education Policy Analysis Archives*, 27(36). <https://doi.org/10.14507/epaa.27.3699>
- Garcia, C. M., Slate, J. R., & Delgado, C. T. (2019). Salary and Ranking and Teacher Turnover: A Statewide Study. *International Journal of Education Policy and Leadership*, 4(7), 1-8. <https://doi.org/10.22230/ijep1.2009v4n7a114>
- Gilmour, A. F., & Wehby, J. H. (2020). The association between teaching students with disabilities and teacher turnover. *Journal of Educational Psychology*, 112(5), 1042. <https://doi.org/10.1037/edu0000394>
- Givhan, A. N. (2019). An Analysis of Teacher Turnover and Exit Data Collection Systems in Mississippi School Districts (Doctoral dissertation, Belhaven University).
- Greenham, J. C., Harris, G. E., Hollett, K. B., & Harris, N. (2019). Predictors of turnover intention in school guidance counsellors. *British Journal of Guidance & Counselling*, 47(6), 727-743. <https://doi.org/10.1080/03069885.2019.1644613>
- Ismoilovich, I. M. (2021). The society is at a new stage of development priority in education system reform functions.
- Kongcharoen, J., Onmek, N., Jandang, P., & Wangyisen, S. (2020). Stress and work motivation of primary and secondary school teachers. *Journal of Applied Research in Higher Education*, 12(4), 709-723. <https://doi.org/10.1108/JARHE-04-2019-0088>
- Ondrasek, N., Carver-Thomas, D., Scott, C., & Darling-Hammond, L. (2020). California's special education teacher shortage. Policy Analysis for California Education Learning Policy Intitute. <https://learningpolicyinstitute.org/product/pace-california-special-education-teacher-shortage-report>.
- Paulsrud, D., & Nilholm, C. (2020). Teaching for inclusion—a review of research on the cooperation between regular teachers and special educators in the work with students in

<https://doi.org/10.53819/81018102t5253>

- need of special support. *International Journal of Inclusive Education*, 1-15. <https://doi.org/10.1080/13603116.2020.1846799>
- Podolsky, A., Kini, T., Darling-Hammond, L., & Bishop, J. (2019). Strategies for attracting and retaining educators: What does the evidence say?. *Education Policy Analysis Archives*, 27, 38-38. <https://doi.org/10.14507/epaa.27.3722>
- Räsänen, K., Pietarinen, J., Pyhältö, K., Soini, T., & Väisänen, P. (2020). Why leave the teaching profession? A longitudinal approach to the prevalence and persistence of teacher turnover intentions. *Social Psychology of Education*, 23, 837-859. <https://doi.org/10.1007/s11218-020-09567-x>
- Ryu, S., & Jinnai, Y. (2021). Effects of monetary incentives on teacher turnover: A longitudinal analysis. *Public Personnel Management*, 50(2), 205-231. <https://doi.org/10.1177/0091026020921414>
- Schaack, D. D., Le, V. N., & Stedron, J. (2020). When fulfillment is not enough: Early childhood teacher occupational burnout and turnover intentions from a job demands and resources perspective. *Early Education and Development*, 31(7), 1011-1030. <https://doi.org/10.1080/10409289.2020.1791648>
- Simpson, S. C. (2021). *The Effect of Teachers' Classroom Performance on Fifth-Grade Students Academic Progress in Math and Reading*. Dallas Baptist University.
- Sorensen, L. C., & Ladd, H. F. (2020). The hidden costs of teacher turnover. *Aera Open*, 6(1), 2332858420905812. <https://doi.org/10.1177/2332858420905812>

<https://doi.org/10.53819/81018102t5253>