Available online at: http://journal.uny.ac.id/index.php/jpe

**Jurnal Prima Edukasia, 11 (2), 276-285**

# The Development of Collaborative-Based Learning Models to Increase Self-Efficacy and Positive Attitudes of Primary Teacher Education Students towards Inclusive Education in Yogyakarta

**Unik Ambar Wati[1]*, Hermanto[1], Sisca Rahmadonna[1], Pujaningsih[1], Mahilda Dea Komalasari[2], Kukuh Wahyudi Pratama[3]**

[1]Universitas Negeri Yogyakarta, Indonesia

[2]Universitas PGRI Yogyakarta, Indonesia

[3]Institute of Advanced Science, Engineering, and Education, Malaysia

*Corresponding Author. E-mail: unik@uny.ac.id

*Received: 9 June 2023; Revised: 9 June 2023; Accepted: 19 July 2023*

**Abstract**: This study attempts to develop a collaborative-based learning model that can increase self-efficacy and positive attitudes of Primary Teacher Education students toward inclusive education in Indonesia. This study is intended to provide an understanding to the students who are also teacher candidates. The understanding is about the importance of positive attitudes and teaching abilities, which in this study are limited in self-efficacy. The present study employed the Research and Development (R & D) research model. The research participants were elementary school teachers who teach in inclusive schools and 54 students. Quantitative and qualitative techniques were used to analyze the data. Mann–Whitney U test was used to determine changes in students' self-efficacy and attitudes before and after learning activities. The results indicate a significant difference in self-efficacy with p sig < 0.05. The t-test result is 0.119. As the $t_{count}$ is greater than the $t_{table}$ (0.119 > 0.05), it indicates that there is no significant difference. Hence, it can be inferred that there is no statistically significant difference in developing a collaborative-based lecture model aimed at enhancing self-efficacy and fostering favorable attitudes among students towards inclusive education in Yogyakarta.

**Keywords:** learning model, collaborative, self-efficacy, positive attitude, inclusive education

**How to Cite**: Wati, U. A., Rohmadonna, S., Pujaningsih, Komalasari, M. D., & Pratama, K. W. (2023). The development of collaborative-based learning models to increase self-efficacy and positive attitudes of primary teacher education students towards inclusive education in Yogyakarta. *Jurnal Prima Edukasia, 11*(2), 276-285. doi: http://dx.doi.org/10.21831/jpe.v11i2.62193

## Introduction

Today, inclusive education sets all students with special needs in conventional classrooms for the whole school day (Krämer et al., 2021). This condition demands an understanding that inclusive education equates children with special needs with normal children (Griful-Freixenet et al., 2021). For this reason, teachers have full responsibility for students with special needs during the teaching-learning process in the classroom. Teachers must be able to deal with students' different characters (Buchner et al., 2021). According to Regulation of the Ministry of National Education Number 70 of 2009, inclusive education is a system that affords equal educational opportunities to students with disabilities with intellectual potential and special talents, enabling them to learn alongside their peers in a general educational setting. From national to regional level policies, inclusive implementation has been legitimized by the government. It provides convenience in its implementation because inclusive education already has a strong legal basis. However, regarding inclusive education implementation, there are many obstacles, including technical and non-technical conceptual barriers.

Some studies on teacher preparation programs have been done in some countries. It was found useful for prospective teachers when they received courses on children with special needs regarding knowledge, attitudes, and skills (Li & Ruppar, 2021). Additional teacher training on how to deal with

students with special needs influences positive teacher dispositions and the desire to implement inclusive education (Page et al., 2021). Byrne (2022) stated that changes in teacher education to support inclusive education can be made by adding new courses or field experiences and revising existing materials. Another strategy that can be taken is to determine the courses for special teacher candidates and regular teacher candidates. Pit-ten Cate et al. (2018) investigated the impact of this strategy in courses attended by prospective teachers (regular and special) through various collaborative activities with students. Students felt prepared to create lesson plans, implement various learning strategies, and make modifications.

Tuncay & Kizilaslan (2022) emphasized that a learning environment that promotes opportunities for sharing opinions, making decisions, communicating, and collaborating among teacher candidates for regular and special classes is intended to develop professional knowledge and skills. In addition to the competencies that must be achieved in the education of prospective teachers, an attitude is needed to face the challenges of teaching in inclusive schools, namely, a positive outlook. Ismailos et al. (2022) argued that a positive view of students with special needs is one of the most important aspects of teacher education programs. In addition to a positive outlook, collaboration skills with other instructors are required when dealing with students of varying capacities. A study conducted by Saloviita (2020) found that 84% of the teacher respondents stated that they should have the skills to collaborate with special teachers. The lecture process in the education of prospective teachers in this study aims to build self-efficacy and positive attitudes based on social cognitive theory (Van Mieghem et al., 2020).

Some theories underlie research related to some topics, such as student motivation in the academic context (Anwer, 2019), teacher stress (Von der Embse et al., 2019), beginner teacher (Lucey & Van Nieuwerburgh, 2021), and teacher competence in dealing with students with special needs (Weiss, Markowetz, & Kiel, 2018). Most of these studies use self-assessment, so it is possible to have potential bias. Self-efficacy can change in a negative or positive direction depending on four sources, i.e., achievements, direct experience, invitations (verbal persuasion), and psychological conditions (Ayllón et al., 2019). These four sources can color the educational process of prospective teachers with various learning experiences depending on the lecture process and predisposition and each student. Geng et al. (2019) stated that the quality of teacher preparation programs is one of the sources of self-efficacy for novice teachers when they teach. It is in line with Yada et al. (2021), who stated that self-confidence and teaching competence are the most appropriate predictors to describe the quality of teacher education programs to prepare prospective teachers with adequate knowledge and skills.

Collaborative-based lecture model is one of the three models for integrating special education materials into the general education curriculum (Kesäläinen et al., 2022). This model requires intensive cooperation from the supporting lecturers. Cooperation is especially needed in preparing lecture materials, delivering material, and determining the target outcomes (Al-Zboon, 2022). The model tries to solve other model weaknesses, namely, separated lectures/separated models and integrated lectures/infusion model. The collaborative lecture model allows prospective teachers to collaborate with students from other study programs during lectures. At the same time, the students are also directly mentored by lecturers from two different disciplines (Sciuchetti, 2017). Consequently, prospective teachers' collaboration skills would have been refined in college courses and practicums, making it possible for them to work with children with special needs in inclusive schools (Anderson & Putman, 2020).

This research was motivated by the gap between the needs for teacher skills in handling diverse students, including children with special needs. This study also focused on solving problems related to Teacher Training Institutes (educational institution) preparation of prospective teachers who have not adequately answered these challenges. In addition, kindergarten, elementary, junior high, and senior high school teachers who are ready to handle children with special needs continue to grow. However, the preparation of teacher candidates in some educational institutions in Indonesia has not fully answered this challenge because the preparation is still limited to providing 1 inclusive education course that presents an overview of only children’s various needs without strategies to fulfill them.

## Methods

The population in this research was elementary school teachers who teach in inclusive schools and 54 students. The present study employed the research and development (R&D) design in which the main activities were adopted from the model developed by Borg and Gall (2003). This research and development were carried out through ten main stages, namely:

1. Information Collection
   It was done by reviewing the literature on teacher education models that had been developed and researched and then identifying the gap between teacher competence in inclusive schools and the expected competence.
2. Design Development
   This design was integrated into the educational institution curriculum and is in the form of a model and a teacher curriculum development guidebook that supports inclusive education and includes the aspects of substance, procedures, strategy, and evaluation system as well as indicators of success in model implementation.
3. Product Development
   This stage began with collecting, compiling, and organizing materials according to developing teaching materials and printing principles.
4. Internal Validation
   Media experts provided advice and assessed the quality of teaching materials. Meanwhile, the validation by material experts was to provide suggestions and ratings on the quality of the developed materials.
5. Preliminary Trial
   The first limited trial was conducted in 1 educational institution and focused on 1 study program. The models and guidebooks for prospective teacher education that support inclusive education were used in a class.
6. Product Revision
   The revision was done based on the internal validation and preliminary trial results to improve the initial hypothetical model.
7. Preparation of the Guidebook Draft
   The draft of the guidebook to support inclusive education is the revised product of the initial design validated.
8. Test of the Product Effectiveness
   The learning models and guidebooks that support inclusive education were assessed to measure their effectiveness.
9. Final Improvement
   In this stage, the model and guidebook for prospective teacher education that supports inclusive education were revised.
10. Implementation and dissemination of models and products (handbook).

### Statistical analysis

The present study employed a descriptive narrative approach to conduct data analysis, wherein a comparison was made between pre- and post-implementation data on student knowledge, attitudes, and perceptions about services for children with special needs in inclusive schools. This analysis was conducted within the framework of the proposed learning model.

## Results and Discussion

### Results

Data collected during the research were analyzed through the descriptive narrative technique with a comparison of student knowledge, attitudes, and perceptions regarding services for children with

special needs in inclusive schools before and after implementing the teacher education model at Primary School Teacher Education partner universities. The result of the data analysis is presented below.

**Table 1.** Self-Efficacy Statistics Test Results

| Statistics | | Pretest_SE_A | Postest_SE_A |
|---|---|---|---|
| N | Valid | 27 | 27 |
| | Missing | 0 | 0 |
| Mean | | 85.5556 | 89.3333 |
| Median | | 88.0000 | 90.0000 |
| Mode | | 94.00a | 96.00 |
| Std. Deviation | | 8.69718 | 7.86912 |
| Minimum | | 66.00 | 59.00 |
| Maximum | | 96.00 | 96.00 |
| Sum | | 2310.00 | 2412.00 |

a. Multiple modes exist. The smallest value is found.

Based on Table 1 above, with a sample of 54 people, the minimum value of the pre-test is 66, the minimum value of the post-test is 59, the maximum value of the pre-test is 96, the maximum value of the post-test is 96, with the mean values of pre-test and post-test are 85.55 and 89.33, std. deviation of the pre-test is 8.69, and Std. deviation of the post-test is 7.86.

**Table 2.** Normality Test Results (NPar Test)

| | | Pre-test SE A | Post-test SE A |
|---|---|---|---|
| N | | 27 | 27 |
| Normal Parameters a b | Mean | 85.5556 | 89.3333 |
| | Std. Deviation | 8.69718 | 7.86912 |
| Most Extreme Differences | Absolute | .187 | .200 |
| | Positive | .115 | .198 |
| | Negative | -187 | -200 |
| Test Statistic | | .087 | .072 |
| Asymp. Sig. (2-tailed) | | 116* | 107* |

a. Data distribution is normal
b. Calculated from the data
c. Liliefors Significance Correction

From Table 2 above, the data are said to be normal if p Sig > 0.05. The data obtained from the pre-test and post-test are normal.

**Table 3.** Homogeneity Test Results

| N | | | | | 95% Confidence Interval for Mean | | | |
|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error | Lower Bound | Upper Bound | Minimum | Maximum |
| Pretest | 27 | 85.5556 | 8.69718 | 1.67377 | 82.1151 | 88.9960 | 66.00 | 96.00 |
| Post-test | 27 | 89.3333 | 7.86912 | 1.51441 | 86.2204 | 92.4463 | 59.00 | 96.00 |
| Total | 54 | 87.4444 | 8.43324 | 1.14762 | 85.1426 | 89.7463 | 59.00 | 96.00 |

Table 3 above shows that the combined mean value obtained from the pre-test and post-test in the one-way test is 87.44, with a total std. deviation is 8.43, and a total std. error is 1.14.

**Table 4.** Self-efficacy

| Levine Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.112 | 1 | 52 | .296 |

Table 4 above shows the homogeneity of variance of self-efficacy. Levene statistic obtained is 1.112, with df 1, df2 52, and a significant value of (0.296). The pre-test and post-test data are homogeneous if p sig > 0.05. The result is sig .296, which means the data are homogeneous.

**Table 5.** Paired t-test results

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Postest_SE_A | 89.3333 | 27 | 7.86912 | 1.51441 |
| | Pretest_SE_A | 85.5556 | 27 | 8.69718 | 1.67377 |

Table 5 above shows that the pre-test mean value is 89.33, while the mean value of the post-test is 85.55, the std deviation in the pre-test is 7.869, and the post-test value is 8.697. Then, the value of the std. error mean of the pre-test is 1.51, and std. the error means value of the post-test is 1.67.

**Table 6.** Paired Samples Correlations

| | | N | Correlation | Sig. |
|---|---|---|---|---|
| Pair 1 | Postest_SE_A & Pretest_SE_A | 27 | -.079 | .696 |

Table 6 above shows the pre-test and post-test results with a sample of 27. The correlation value is -.079 with Sig .696.

**Table 7.** Paired Samples Test

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for the Differences | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lower | Upper | | | |
| Pair 1 | Post-test SE A<br>Pre-test SE B | 3.77778 | 12.17922 | 2.34389 | -1.04016 | 8.59572 | 1.612 | 26 | .119 |

Table 7 above shows that self-efficacy data are said to have a significant difference if p sig < 0.05, t-test results obtained is 0.119, which is greater than 0.05. It means no significant difference exists between post-test and pre-test self-efficacy data (shown in statistics).

From the data analysis result, the pre-test's mean value is smaller than the post-test's (85.56 < 89.33), with a gap of 3.78. It means that the difference is not significant.

**Table 8**. Pre-test Descriptive Results B (statistic)

| | | |
|---|---|---|
| N | Valid | 29 |
| | Missing | 0 |
| Mean | | 86.6552 |
| Median | | 92.0000 |
| Mode | | 96.00 |
| Std. Deviation | | 12.23367 |
| Minimum | | 48.00 |
| Maximum | | 98.00 |
| Sum | | 2513.00 |

From Table 8 above, with a sample of 29 people, it was obtained that the minimum value is 48, the maximum value is 98, the mean value is 86.65, and Std. The deviation is 12.23.

**Table 9.** Pre-test B. Normality Test Results (NPar Tests)

| | | |
|---|---|---|
| N | | 29 |
| Normal Parameters | Mean | 86.6552 |
| | Std. Deviation | 12.23367 |
| Most Extreme Differences | Absolute | .221 |
| | Positive | .177 |
| | Negative | -.221 |
| Test Statistic | | .091 |
| Asymp. Sig. (2-tailed) | | .101c |

a. Data distribution is normal.
b. Calculated from the data
c. Lilliefors Significance Correction

From Table 9 above, with a sample of 29 people, the mean value obtained is 86.65, and the Std. The deviation is 12.23. The data are said to be normal if p sig > 0.05. As the $p_{value}$ is 0.101, the pre-test data pass the norm of the one-sample t-test.

**Table 10.** T-test

| | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Pretest_SE_B | 29 | 86.6552 | 12.23367 | 2.27173 |

From Table 10 above, with a sample of 29, the obtained mean value is 86.65, std. deviation is 12.23, and the Std. error mean is 2.271.

**Table 11.** One Sample Test

| | | | | df 95% Confidence Interval for the Differences | |
|---|---|---|---|---|---|
| Test Value = 0 | | Sig. (2-tailed) | Mean difference | Lower | Upper |
| Pre-test SE B 38.145 | 28 | .000 | 86.65517 | 82.0017 | 91.3066 |

Table 11 shows that the self-efficacy pretest data for class B is significantly different if p sig < 0.05. The t-test result is 0.000. As the value is smaller than 0.05, there is a significant difference in the self-efficacy pre-test data for class B (seen from the statistics). Then, judging from the mathematics, because the mean value of the pre-test is 86.65, each sample is significantly different.

**Discussion**

Teacher plays a crucial role in determining the efficacy of inclusive education implementation, with their positive attitude serving as an important factor in achieving the goals of inclusive education (Fuente, 2021). Similarly, According to Li & Cheung (2021), the effectiveness of inclusiveness depends on how the teacher interacts with students in the classroom. Moreover, Kivirand et al. (2021) argue that the formation of positive attitudes toward inclusive education cannot be ignored in the education of prospective teachers. Therefore, research on the development of a general pedagogic-based collaborative lecture model with Orth pedagogics (extraordinary education studies) to support inclusive education can be one of the initiatives to improve prospective teachers' ability to educate children with various features and abilities in inclusive schools (Lynch et al., 2017). Septiana (2018) points out that inclusive elementary school teachers with high self-efficacy have a high level of competency. This competency will ultimately improve self-quality, which later can enhance students' quality. It can also help understand the difficulties in teaching, determine learning methods, choose media for learning, and develop an enhanced rubric for lesson plan analysis.

Gratacós et al. (2021) discovered that the standard of teacher preparation programs is one of the sources of self-efficacy among beginning teachers. It is consistent with Outlaw & Grifenhagen's (2021)

argument that teachers' self-confidence and teaching competence are the best predictors of the quality of teacher education programs that prepare prospective teachers with the necessary knowledge and skills. Another relevant previous study which was conducted by Fabriz et al. (2021), described how self-efficacy of teacher candidates for students with disabilities in inclusive schools. This study aims to develop a collaborative-based lecture model that can increase self-efficacy and positive attitudes of prospective primary education teachers towards inclusive education in Indonesia. The results of the study are: 1) dissemination is carried out by involving several universities; 2) collaborative lectures with UPY partner campuses were carried out through planning, material integration, lecture implementation, assessment, and reflection; and 3) self-efficacy of UPY students from the t-test results is 0.119 (0.119> 0.05), so there is no significant difference between post-test and pre-test self-efficacy data.

Smothers et al. (2020) conduct the next relevant previous self-efficacy research. The study focused on teacher candidates' confidence in their ability to instruct children with special needs in inclusive institutions. In general, the results indicated that the self-efficacy of prospective teachers was moderate. Based on the three sub-constructs of prospective teacher self-efficacy, it was found that: 1) the sub-construction of "Using Inclusive Instructional" is in the moderate category as prospective teachers had lack confidence that they could use inclusive learning strategies, use various assessment strategies, and design learning materials and assignments that are able to accommodate all students; 2) the "Collaboration" sub-construct was in the Moderate category because prospective teachers had lack confidence in informing others about inclusive education policies and/or special needs children, and they were not really sure whether they could involve parents, colleagues, and professionals in learning activities; and 3) "Managing Behavior" subconstruct was also in the Moderate category as the prospective teachers had lack confidence to deal with physically aggressive students, lack confidence in preventing, detecting, and controlling disruptive behaviour in the classroom, and lack of confidence in creating a disciplined atmosphere in the classroom.

The previous study was performed by Nursyamsi & Corebima (2016). The study aimed to investigate the impact of the Numbered Head Together learning model on fourth-grade students' self-efficacy in science subjects. It utilized a quasi-experimental design with non-equivalent post-test-only control groups. The samples were chosen using a basic random sampling method. The participants of the study were 62 students. Data were collected through tests and surveys. The data analysis technique in this study was descriptive and inferential analysis techniques. Based on the t-test results, $t_{count}$ is 12.55, while $t_{table}$ with df = 60 at a significant level of 5% is 1.95. It means that $t_{count}$ is greater than $t_{table}$ ($t_{count} > t_{table}$), so that $H_0$ is rejected and H1 is accepted. It indicated a significant difference between the self-efficacy of students taught using the Numbered Head Together learning model and those who did not. The Numbered Head Together learning model has a positive effect on fourth-grade elementary school students' self-efficacy in science disciplines, and it can enhance students' self-efficacy.

## Conclusion

The assessment results by the media and material experts show several important input points. First, the research dissemination should be carried out by involving three educational institutions at Universitas Ahmad Dahlan (UAD), Universitas Sarjanawiyata Tamansiswa (UST), and Universitas PGRI Yogyakarta (UPY). Second, the product implementation should be done by conducting collaborative lectures with UPY lecturers in the High-Grade Elementary Learning Curriculum course. At last, based on the t-test results, UPY students' self-efficacy score is 0.119, meaning there is no significant difference in the post-test and pre-test data of self-efficacy.

Inclusive education is a type of education that encompasses all aspects of the embrace of students with disabilities in the pursuit of fundamental rights. It is a system or strategy to create an education that is open to all individuals to create responsive schools that accommodate diversity and needs according to the conditions of each individual. The goals of inclusive education include providing learning opportunities for all, contributing to learning activities in regular schools and classrooms, and obtaining programs substantially similar to the curriculum, which can be adapted and modified if necessary. The implementation of inclusive education is founded on the principle that all communities have equal access to education without discrimination. However, the implementation of inclusive education is not always seamless, and numerous obstacles still prevent education policies from being implemented optimally.

The obstacles are 1) teachers' lack of knowledge of dealing with students with disabilities; 2) problems in conveying the full learning material to students; 3) the methods, media, and learning strategies which do not accommodate all students; (4) management of subjects should be modified to accommodate the needs of both ordinary students and students with disabilities; 5) students' different cognitive competences, especially those with disabilities in class; 6) applicable valuation policy; and 7) curriculum modification.

Based on these obstacles, it indicates that teachers have a very important role in achieving the success of inclusive education. The knowledge and ability of teachers to deal with students' various needs should be improved to provide interactive learning according to the conditions of students. Teachers need to be prepared both mentally and physically. As teacher credibility and professionalism are crucially needed, teachers must have academic readiness and competence. Professional development of teachers must be provided to prospective teachers. Comprehensive habituation and debriefing during teacher education will be a good start for prospective teachers to become professional teachers. The provision of materials regarding inclusive education or children with special needs is also crucial to prepare prospective teachers if later they meet students with disabilities.

## References

Al-Zboon, E. (2022). Assistive technologies as a curriculum component in Jordan: Future special education teachers' preparation and the field status. *Assistive Technology*, *34*(1), 20-25. https://doi.org/10.1080/10400435.2019.1677804

Anderson, S. E., & Putman, R. S. (2020). Special education teachers' experience, confidence, beliefs, and knowledge about integrating technology. *Journal of Special Education Technology*, *35*(1), 37-50. https://doi.org/10.1177/0162643419836409

Anwer, F. (2019). Activity-based teaching, student motivation and academic achievement. *Journal of Education and Educational Development*, *6*(1), 154-170. https://doi.org/10.22555/joeed.v6i1.1782

Ayllón, S., Alsina, Á., & Colomer, J. (2019). Teachers' involvement and students' self-efficacy: Keys to achievement in higher education. *PloS one*, *14*(5), e0216865. https://doi.org/10.1371/journal.pone.0216865

Buchner, T., Shevlin, M., Donovan, M. A., Gercke, M., Goll, H., Šiška, J., & Corby, D. (2021). Same progress for all? Inclusive education, the United Nations Convention on the rights of persons with disabilities and students with intellectual disability in European countries. *Journal of Policy and Practice in Intellectual Disabilities*, *18*(1), 7-22. https://doi.org/10.1111/jppi.12368

Byrne, B. (2022). How inclusive is the right to inclusive education? An assessment of the un convention on the rights of persons with disabilities' concluding observations. *International Journal of Inclusive Education*, *26*(3), 301-318. https://doi.org/10.1080/13603116.2019.1651411

Dela Fuente, J. A. (2021). Implementing inclusive education in the Philippines: College teacher experiences with deaf students. *Issues in Educational Research*, *31*(1), 94-110. http://www.iier.org.au/iier31/dela-fuente.pdf

Fabriz, S., Hansen, M., Heckmann, C., Mordel, J., Mendzheritskaya, J., Stehle, S., & Horz, H. (2021). How a professional development programme for university teachers impacts their teaching-related self-efficacy, self-concept, and subjective knowledge. *Higher Education Research & Development*, *40*(4), 738-752. https://doi.org/10.1080/07294360.2020.1787957

Gratacós, G., Mena, J., & Ciesielkiewicz, M. (2021). The complexity thinking approach: Beginning teacher resilience and perceived self-efficacy as determining variables in the induction phase. *European Journal of Teacher Education*, 1-18. https://doi.org/10.1080/02619768.2021.1900113

Geng, J., Jong, M. S. Y., & Chai, C. S. (2019). Hong Kong teachers' self-efficacy and concerns about stem education. *The Asia-Pacific Education Researcher*, *28*(1), 35-45. https://doi.org/10.1007/s40299-018-0414-1

Griful-Freixenet, J., Struyven, K., & Vantieghem, W. (2021). Toward more inclusive education: an empirical test of the universal design for learning conceptual model among preservice teachers. *Journal of Teacher Education*, *72*(3), 381-395.

https://doi.org/10.1177/0022487120965525

Ismailos, L., Gallagher, T., Bennett, S., & Li, X. (2022). Pre-service and in-service teachers' attitudes and self-efficacy beliefs with regards to inclusive education. *International Journal of Inclusive Education*, *26*(2), 175-191. https://doi.org/10.1080/13603116.2019.1642402

Kesäläinen, J., Suhonen, E., Saha, M., & Sajaniemi, N. (2022). Children's stress activation in integrated early childhood special education and its connections to special educational needs and temperament. *European Early Childhood Education Research Journal*, *30*(3) 456-471. https://doi.org/10.1080/1350293X.2022.2055104

Kivirand, T., Leijen, Ä., Lepp, L., & Tammemäe, T. (2021). Designing and implementing an in-service training course for school teams on inclusive education: Reflections from participants. *Education Sciences*, *11*(4), 166. https://doi.org/10.3390/educsci11040166

Krämer, S., Möller, J., & Zimmermann, F. (2021). Inclusive education of students with general learning difficulties: A meta-analysis. *Review of Educational Research*, *91*(3), 432-478. https://doi.org/10.3102/0034654321998072

Li, K. M., & Cheung, R. Y. (2021). Pre-service teachers' self-efficacy in implementing inclusive education in Hong Kong: The roles of attitudes, sentiments, and concerns. *International Journal of Disability, Development and Education*, *68*(2), 259-269. https://doi.org/10.1080/1034912X.2019.1678743

Li, L., & Ruppar, A. (2021). Conceptualizing teacher agency for inclusive education: A systematic and international review. *Teacher Education and Special Education*, *44*(1), 42-59. https://doi.org/10.1177/0888406420926976

Lucey, C., & van Nieuwerburgh, C. (2021). 'More willing to carry on in the face of adversity': How beginner teachers facing challenging circumstances experience positive psychology coaching. An interpretative phenomenological analysis. *Coaching: An International Journal of Theory, Research and Practice*, *14*(1), 62-77. https://doi.org/10.1080/17521882.2020.1753791

Lynch, S. J., Spillane, N., House, A., Peters-Burton, E., Behrend, T., Ross, K. M., & Han, E. M. (2017). A policy-relevant instrumental case study of an inclusive STEM-focused high school: Manor New Tech High. *International Journal of Education in Mathematics, Science and Technology*, *5*(1), 1-20. https://doi.org/10.18404/ijemst.75656

Nursyamsi, S. Y., & Corebima, A. D. (2016). The effect of numbered heads together (NHT) learning strategy on the retention of senior high school students in Muara Badak, East Kalimantan, Indonesia. *European Journal of Education Studies, 2*(5). http://dx.doi.org/10.46827/ejes.v0i0.247

Opoku, M. P. (2021). Exploring the intentions of school leaders towards implementing inclusive education in secondary schools in ghana. *International Journal of Leadership in Education*, 1-21. https://doi.org/10.1080/13603124.2021.1889034

Outlaw, J. K., & Grifenhagen, J. F. (2021). Supporting novice k-2 teachers' self-efficacy for literacy: Early literacy teacher induction for rural schools. *Literacy Research and Instruction*, *60*(3), 242-263. https://doi.org/10.1080/19388071.2020.1822474

Page, A., Charteris, J., Anderson, J., & Boyle, C. (2021). Fostering school connectedness online for students with diverse learning needs: Inclusive education in australia during the covid-19 pandemic. *European Journal of Special Needs Education*, *36*(1), 142-156. https://doi.org/10.1080/08856257.2021.1872842

Pit-ten Cate, I. M., Markova, M., Krischler, M., & Krolak-Schwerdt, S. (2018). Promoting inclusive education: the role of teachers' competence and attitudes. *Insights into Learning Disabilities*, *15*(1), 49-63. https://eric.ed.gov/?id=EJ1182863

Saloviita, T. (2020). Attitudes of teachers towards inclusive education in Finland. *Scandinavian Journal of Educational Research*, *64*(2), 270-282. https://doi.org/10.1080/00313831.2018.1541819

Septiana, D. (2018). The influence of emotional intelligence, self-efficacy, and altruism on teacher's competence in inclusion elementary school. *Jurnal Prima Edukasia*, *6*(2), 147-156. https://doi.org/10.21831/jpe.v6i2.14413

Sciuchetti, M. B. (2017). Addressing inequity in special education: An integrated framework for culturally responsive social emotional practice. *Psychology in the Schools*, *54*(10), 1245-1251. https://doi.org/10.1002/pits.22073

Smothers, M., Colson, T., & Keown, S. (2020). Does delivery model matter? the influence of course

delivery model on teacher candidates' self-efficacy beliefs towards inclusive practices. *International Review of Research in Open and Distributed Learning*, *21*(3), 41-59. https://doi.org/10.19173/irrodl.v21i3.4675

Tuncay, A. A., & Kizilaslan, A. (2022). Pre-service teachers' sentiments, attitudes and concerns about inclusive education in turkey. *European Journal of Special Needs Education*, *37*(2), 309-322. https://doi.org/10.1080/08856257.2021.1873524

Van Mieghem, A., Verschueren, K., Petry, K., & Struyf, E. (2020). An analysis of research on inclusive education: a systematic search and meta review. *International Journal of Inclusive Education*, *24*(6), 675-689. https://doi.org/10.1080/13603116.2018.1482012

Von der Embse, N., Ryan, S. V., Gibbs, T., & Mankin, A. (2019). Teacher stress interventions: A systematic review. *Psychology in the Schools*, *56*(8), 1328-1343. https://doi.org/10.1002/pits.22279

Weiss, S., Markowetz, R., & Kiel, E. (2018). How to teach students with moderate and severe intellectual disabilities in inclusive and special education settings: Teachers' perspectives on skills, knowledge and attitudes. *European Educational Research Journal*, *17*(6), 837-856. https://doi.org/10.1177/1474904118780171

Yada, A., Björn, P. M., Savolainen, P., Kyttälä, M., Aro, M., & Savolainen, H. (2021). Pre-service teachers' self-efficacy in implementing inclusive practices and resilience in Finland. *Teaching and Teacher Education*, *105*, 103398. https://doi.org/10.1016/j.tate.2021.103398