

TEACHER'S PEDAGOGICAL COMPETENCE TOWARDS GIFTED STUDENTS AT SMAN 5 TUALANG

Agung Azmar¹, Adolf Bastian², Marwa Marwa³

¹ Lancang Kuning University; agungazmar99@gmail.com

² Lancang Kuning University; adolfbastian@rocketmail.com

³ Lancang Kuning University; marwaaisyah@yahoo.co.id

ARTICLE INFO

Keywords:

Keyword 1; Pedagogical Competency
Keyword 2; Gifted Students
Keyword 3; Teacher

Article history:

Received 2025-01-24
Revised 2025-06-12
Accepted 2025-06-28

ABSTRACT

This study examines the pedagogical competence of teachers in managing the learning process of gifted students at SMAN 5 Tualang. A qualitative approach with a case study design was employed, involving data collection through interviews, classroom observations, and document analysis. The study focused on exploring the teachers' understanding of gifted students' unique characteristics, their implementation of differentiated learning strategies, and their use of evaluations to optimize student potential. Findings reveal that while teachers show competence in understanding student needs and integrating technology, challenges such as limited resources, lack of specialized training, and inflexible curricula persist. To address these issues, the study proposes strategic solutions, including professional development programs, flexible curriculum designs, and improved technological infrastructure. The research concludes that enhancing teacher pedagogical competence is critical to creating an adaptive and supportive learning environment that fosters the intellectual, emotional, and social growth of gifted students.

This is an open access article under the [CC BY-NC-SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.



Corresponding Author:

Agung Azmar
Lancang Kuning University; agungazmar99@gmail.com

1. INTRODUCTION

Each child has unique strengths and weaknesses, depending on the nature they were born with. However, every child who has advantages must have disadvantages, and vice versa. Every child who is not given access to their potential also has extraordinary advantages, one of which is a gifted child. According to Ellen in (Santrock J, 2011) explained that gifted students have above average intelligence, IQ > 130 and have superior skills in various fields. Gifted students are highly committed to the tasks given, and have innovative creativity. So gifted students need to be trained and develop all their potential through educational efforts (Sundari et al., 2020).

Gifted students are individuals with extraordinary potential in the fields of academics, arts, or creativity (Sholehah & Putro, 2022). They have intellectual abilities that are far above average, which allows them to understand complex concepts more quickly. However, this

potential is often not optimized due to a lack of appropriate learning approaches. Based on the National Education System Law NO. 20 of 2003, gifted students in Indonesia are referred to as citizens with extraordinary abilities and intelligence, who demand special education services to support their development.

One important component of gifted students' learning is the pedagogical proficiency of their teachers. Understanding student characteristics, organizing and carrying out instruction, assessing learning results, and maximizing student potential are all included in this ability (Permendiknas No. 16 of 2007). Teachers who understand the special needs of gifted students can create a learning environment that supports their intellectual, emotional, and social development (Anam et al., 2021). However, challenges such as limited resources, lack of training, and inflexible curricula often hinder the effectiveness of learning (VanTassel-Baska et al., 2020).

The competence of teachers of gifted students is more related to the teacher's pedagogical competence. Pedagogical competency is one of the skills that a teacher needs to have and master because it is related to learning management. The ability to supervise student learning is called pedagogical competence in Law Number 14 of 2005 concerning Teachers and Lecturers. Pedagogical competence is part of expertise where this expertise needs to be possessed by something related to good educational principles (Rosyada et al., 2021).

At SMAN 5 Tualang, gifted students show extraordinary potential with impressive academic and non-academic achievements, such as participation in Olympics, arts and music. However, managing the learning of gifted students in schools still faces obstacles. Teachers often have difficulty understanding students' characteristics and adapting learning strategies to suit their unique needs (Roqib & Nurfuadi, 2020). Another obstacle is the low results of the Teacher Competency Examination (UKG) in Riau Province, especially in the pedagogical aspect with an average score of 51.55, this value is still below the national standard, this shows that there is a gap between the expected competence and the actual ability of teachers in educating gifted students.

Teachers are also faced with challenges such as limited resources, lack of special training and social and psychological barriers for gifted students. This obstacle further complicates efforts to create optimal learning. Therefore, strategic steps are needed to improve teacher pedagogical competence so that they can meet the needs of gifted students effectively. One of the proposed solutions is teacher training and professional development.

According to Renzulli, teaching gifted students must involve differentiation, acceleration and enrichment approaches. This approach allows gifted students to explore their interests in more depth (Marina et al., 2019). Apart from that, the social and emotional aspects of gifted students must also be considered. Gifted students often face social isolation due to differences in their interests and abilities with their peers. Therefore, teachers must have the ability to support the social and emotional development of gifted students, in addition to the intellectual aspects (Gubbins et al., 2021).

A student is considered gifted if they demonstrate exceptional talent, described as an extraordinary capacity for learning and reasoning, performance competency, or demonstrated achievement in the top 10 percent or less in one or more subjects. Any structured area of activity with its own set of symbols, such as language, music, or mathematics, as well as a variety of sensorimotor skills, such as painting, dancing, or sports, is considered a domain (Vega & Moore, 2018).

Creative skills are one of the many mental qualities that gifted students possess and are developed in many ways. Belief in one's own creative abilities is known as creative self-efficacy. Additionally, creative self-efficacy gives people power, confidence, and influence that helps them persist and increases confidence in their creative abilities (Dhamit et al., 2020).

UU SPN No. 2 In 1989, gifted children are those who have extraordinary intelligence and skills. Although intelligence is associated with the development of intellectual abilities,

extraordinary abilities are not solely intellectual. These cutoffs list the following categories of intelligence and extraordinary talents: a) general intellectual and specific academic abilities; b) creative-productive thinking; c) psychosocial/leadership; d) artistic/kinesthetic; and e) psychomotor.

Based on the government's definition, it is clear that gifted students not only have intellectual abilities but also have talents. So teachers must be able to manage learning appropriately according to the needs of gifted students so that learning can run well. The learning process must be adapted to the characteristics of gifted students themselves.

According to (Lubis & Ikhsan, 2015) professional teachers start their careers from prospective teachers and novice teachers have practiced pedagogical competencies to become experts in implementing all pedagogical competency items in the learning process they carry out. Teachers are required to have good knowledge, attitudes and skills in carrying out their professional duties. The proportion of knowledge, attitudes and skills possessed by each profession is different, for example a teacher is required to have these three aspects and must be balanced.

Pedagogical competence is the ability to combine it with the teacher's special skills to produce synergy. A teacher can only understand the demands of modern educational trends when they have social and pedagogical competence. Intense interactions, two-way communication and discussions, collaboration, partnerships and alliances are all influenced by aspects of teacher pedagogical competence that only emerge in the context of interaction throughout the learning process (Nemet, 2018).

The pedagogical competencies used in this research are based on National Education Regulation number 16 of 2007, concerning Academic Qualifications and Teacher Competencies, it is explained that teacher pedagogical competencies include: 1) Mastering the physical, moral, spiritual, sociocultural, emotional, and intellectual traits of pupils 2) Gaining an understanding of educational learning principles and learning theory; 3) creating a syllabus that is relevant to the courses being taught; 4) Planning instructional activities; 5) Applying communication and information technologies to education; 6) Offer kids the opportunity to realize their diverse potentials; 7) Interact with pupils in a courteous, sympathetic, and successful manner; 8) Conducting evaluations and assessments of learning outcomes and procedures; 9) Apply the findings of assessments and evaluations to education; 10) Take thoughtful steps to raise the standard of instruction.

The formulation of the problem in this research is: 1) What is the pedagogical competency profile of teachers in carrying out learning tasks for gifted students at SMAN 5 Tualang? 2) What are the obstacles faced in implementing teacher pedagogic competence for gifted students at SMAN 5 Tualang? 3) What solutions can be applied to improve teachers' pedagogical competence in teaching gifted students.

This research aims to describe the pedagogical competency profile of teachers at SMAN 5 Tualang, the obstacles they face, and the solutions that can be implemented. By understanding this condition, it is hoped that effective strategies can be formulated to improve the quality of learning for gifted students. The research results can also be a reference for developing educational policies and make a real contribution to more inclusive education for gifted students in Indonesia (Magdalena et al., 2020).

2. METHODS

This research uses a qualitative approach with a case study design. Where the data collected is described in the form of a description. In this research, data analysis includes activities related to the profile of implementing teacher pedagogical competence in the learning process at SMAN 5 Tualang. Research location Jl. Sultan Syarif Qasim KM.6, Tualang District, Siak Regency, Riau Province. Observations were carried out for 52 days, starting from September 27 2024 to November 18 2024. In this study, the research subjects were teachers,

school principals, gifted students, and parents. The researcher is the primary research tool in qualitative research. Since the goal of research is to gather data, data collection techniques are the most crucial stage in the process. To obtain data regarding the development of pedagogical competence of teachers of gifted students, several data collection techniques were used, namely interviews, observation, documentation studies, and data triangulation.

3. FINDINGS AND DISCUSSION

3.1 FINDINGS

The findings of the study demonstrate that SMAN 5 Tualang teachers are aware of the physical, moral, spiritual, social, cultural, emotional, and intellectual traits of exceptional children. Teachers are able to recognize students' individual differences, such as high levels of intelligence, deep curiosity, and emotional sensitivity, so that learning can be tailored to their unique needs. In understanding the characteristics of gifted students, teachers use personal approach strategies such as recognizing students' learning styles and adapting learning methods to their preferences. Teachers also provide emotional support to gifted students, especially when they face challenges or lack self-confidence.

Teachers master learning principles and educational learning theories as seen from the application of constructivism, project-based and collaborative learning approaches. This learning activity not only improves the critical and creative thinking skills of gifted students but also encourages their cooperation and involvement in curriculum development which still needs to be improved to better accommodate the needs of gifted students.

Implementation of educational learning is carried out by utilizing information and communication technology, such as the use of projectors, digital learning applications and virtual laboratories. Teachers also integrate cross-disciplinary material to broaden students' horizons and relate learning to real life. However, limited technological infrastructure in schools is one of the obstacles that is often faced. Teachers sometimes have to look for creative solutions to maximize the use of technology in learning.

Teachers facilitate the development of gifted students' potential through various activities such as research projects, debate competitions, and art activities. Gifted students at SMAN 5 Tualang have succeeded in achieving achievements in olympiads and art competitions thanks to intensive guidance from teachers. Outside the classroom, teachers provide support through extracurricular activities designed to help students develop their interests and talents. This opportunity allows gifted students to explore their potential in greater depth.

Teachers' communication with students is carried out effectively, empathetically and politely, creating a classroom atmosphere that is conducive to learning. In learning evaluation, teachers use formative and summative assessment methods to measure students' overall abilities. The evaluation results are used to identify student strengths and weaknesses and design more appropriate learning strategies. In addition, teachers take reflective action by analyzing learning outcomes and identifying areas that require improvement, such as increasing the use of learning media and classroom management.

Obstacles in implementing teacher pedagogical competence include a lack of special training, limited resources, and a less flexible curriculum. Teachers also face heavy administrative burdens reducing their time to design innovative lessons. Another challenge is the lack of policy support from schools or education agencies in developing learning programs for gifted students.

To overcome these obstacles, this research recommends implementing special training for teachers, developing a more adaptive curriculum, and increasing the use of educational technology. Continuous training and reducing the administrative burden on teachers is expected to increase their focus on learning innovation. In addition, a larger budget allocation for gifted student education programs is needed so that teachers can optimize student potential and create more effective learning.

However, this research also found several good practices that could be developed further. Some teachers have begun to implement a differentiation approach by providing additional challenging assignments for gifted students. There are also efforts to create a learning environment that supports students' social and emotional development, such as through group discussion activities and collaborative projects.

Overall, this research emphasizes the need for special training for teachers, flexible curriculum development, and improved educational facilities to support the learning of gifted students. Implementation of this solution is expected to improve the quality of learning and help gifted students reach their maximum potential.

3.2 DISCUSSION

Teachers at SMAN 5 Tualang have used various learning theories, such as differentiated learning, to adapt the needs of gifted students. Dai and Chen (2020) emphasize the importance of applying this theory, while research by Christopher (2023) shows that a principle-based approach to creative learning can increase the involvement of gifted students in the learning process. Teachers have also attempted to develop a curriculum that is relevant to the subjects taught, although there are still limitations in aligning the curriculum with individual student needs.

The understanding of teachers at SMAN 5 Tualang regarding the needs of gifted students includes physical, emotional, socio-cultural and intellectual aspects. Teachers use diagnostic tests to understand learning styles, practice differentiation, and create a supportive learning environment. This approach is in accordance with Howard Gardner's Multiple Intelligences Theory which emphasizes the importance of recognizing students' various intelligences, as well as Renzulli's Three-Ring Conception of Giftedness which includes above average ability, creativity, and commitment to tasks.

In applying learning theory, teachers adopt constructivism theory by encouraging students to explore information independently and actively, as well as integrating the principles of multiple intelligences to meet learning needs. This is in line with the Triarchic and Sternberg Theory, which encourages the development of analytical, creative and practical intelligence. In addition, curriculum development is carried out using a content and project differentiation approach according to student potential. This approach reflects Gagne's Differentiated Model of Giftedness and Talent (DMGT), which emphasizes the importance of a supportive environment in developing natural talents into real skills.

The research results show that teachers face various obstacles in implementing pedagogical competencies. One of the main obstacles is the lack of special training for teachers in dealing with gifted students. Apart from that, limited school facilities and resources are also a challenge in creating optimal learning. For example, teachers often have to adapt teaching methods to the needs of gifted students without the support of adequate learning media.

Research by Peters et al. (2020) highlighted that limitations in appropriate assessments can be an obstacle in understanding the needs of gifted students as a whole. Additionally, Gubbins et al. (2021) found that the integration of technology in the learning of gifted students is often hampered by a lack of training and resources. Another study by Fathurrahman et al. (2019) emphasized the importance of strengthening collaboration between teachers, schools and communities in overcoming learning obstacles for gifted students.

Teachers at SMAN 5 Tualang face various obstacles in meeting the needs of gifted students. From the aspect of understanding the specific needs of gifted students, teachers often experience limited time to deeply understand the needs of gifted students. Another obstacle arises in utilizing technology for interactive learning. Teachers mention limited

facilities such as laboratories and internet connections in schools. Gagne's theory emphasizes the importance of environmental support, including access to technology, for developing the skills of gifted students.

To overcome these obstacles, this research proposes several strategic solutions. Intensive training for teachers needs to be held periodically to increase their understanding of the needs of gifted students. This training may include the use of differentiation teaching strategies, integration of technology in learning and inclusive classroom management. Kim et al. (2021) shows that simulation-based training and real case studies can help teachers deal with the specific challenges faced by gifted students. This training allows teachers to develop more effective differentiation approaches and apply creative strategies in teaching.

Research by Davis (2022) shows that close collaboration with parents can create continuity in educational approaches at home and school. With structured communication, teachers can better understand the needs and background of gifted students. Supportive education policies need to be strengthened. Budget allocations for teacher training and facility development can improve the quality of teaching. Support from educational institutions may also include providing access to educational conferences and seminars for gifted students.

The solution that can be implemented is to make optimal use of technology to support the learning of gifted students. Teachers mentioned the need to provide facilities such as technology laboratories and special training in using learning software, this supports Sternberg's theoretical views on the importance of a holistic approach, including the application of practical intelligence through technology. The use of technology such as virtual simulations and interactive tools can help gifted students develop analytical, creative, and practical thinking skills simultaneously.

In terms of educational technology as part of a learning strategy for gifted students. Technology can be used to create more interesting and interactive learning experiences, as well as provide opportunities for gifted students to explore areas of interest in depth. However, the successful implementation of technology is highly dependent on teachers' readiness to utilize these tools effectively.

Overall, this discussion shows that increasing teacher pedagogical competence is the key to viewing teachers' pedagogical competence profiles, overcoming various obstacles found in this research, and formulating solutions to these obstacles. This research provides important insights for better educational policy and practice for gifted students.

4. CONCLUSION

The conclusion is that teacher pedagogical competence has an important role in supporting the learning of gifted students at SMAN 5 Tualang. This competency includes understanding the characteristics of gifted students, educational learning planning, use of technology, and ongoing evaluation to optimize the potential of gifted students. This research found that although there are challenges such as limited resources and suboptimal teacher competence, solutions such as special training, flexible curriculum development, and emotional approaches can help increase learning effectiveness by strengthening teacher pedagogical competence and can create an adaptive learning environment, supporting academic development and emotionally gifted students to the maximum.

REFERENCES

- Anam, K., Wiradharma, G., Suryani, N., & Sudarwo, R. (2021). Peran Kompetensi Guru terhadap Problem Solving Siswa. *Journal of Education and Instruction (JOEAI)*, 4(2), 364–372. <https://doi.org/10.31539/joeai.v4i2.2663>
- Dhamit, Y. A., Albdour, N. T., & Alshraideh, M. (2020). Creative Self-Efficacy and Its' Relationship to Intellectual Stress among Gifted Students at the Jubilee School. *World Journal of Education*, 10(3), 208. <https://doi.org/10.5430/wje.v10n3p208>
- Gubbins, E. J., Siegle, D., Ottone-Cross, K., McCoach, D. B., Langley, S. D., Callahan, C. M., Brodersen, A. V., & Caughey, M. (2021). Identifying and Serving Gifted and Talented Students: Are Identification and Services Connected? *Gifted Child Quarterly*, 65(2), 115–131. <https://doi.org/10.1177/0016986220988308>
- Lubis, I. R., & Ikhsan, J. (2015). Pengembangan Media Pembelajaran Kimia Berbasis Android Untuk Meningkatkan Motivasi Belajar Dan Prestasi Kognitif Peserta Didik Sma. *Jurnal Inovasi Pendidikan IPA*, 1(2), 191–201. <https://doi.org/10.21831/jipi.v1i2.7504>
- Magdalena, I., Fatharani, J., Oktavia, S. A., & Amini, Q. (2020). Peran Guru dalam Mengembangkan Bakat Siswa. In *Jurnal Pendidikan dan Dakwah* (Vol. 2, Issue 1). <https://ejournal.stitpn.ac.id/index.php/pandawa>
- Marina, M., Indrawati, H., & Suarman, S. (2019). Application of Moving Class Learning Models and Teacher Pedagogical Competence on Learning Motivation and Student Learning Discipline. *Journal of Educational Sciences*, 3(1), 72. <https://doi.org/10.31258/jes.3.1.p.72-83>
- Nemet, M. B. (2018). *A correlation between teachers' social and pedagogical competences and school culture by the Faculty of Education in Osijek-project leader View project*. <https://www.researchgate.net/publication/329249093>
- Roqib, M., & Nurfuadi. (2020). *Kepribadian Guru* (A. Wachid, Ed.). CV. Cinta Buku.
- Rosyada, A., Harapan, E., & Rohana. (2021). Pengaruh Kompetensi Pedagogik Guru terhadap Kualitas Pembelajaran Sekolah Menengah Atas di Kota Sekayu, Sumatera Selatan. *Jurnal Manajemen Pendidikan*, 3(1), 31–42.
- Santrock J. (2011). *Perkembangan Anak*. Salemba Humanik.
- Sholehah, A. M., & Putro, K. Z. (2022). Anak Berbakat (Jenius Atau Gifted Children). *Indonesian Journal of Early Childhood: Jurnal Dunia Anak Usia Dini*, 4(1), 304. <https://doi.org/10.35473/ijec.v4i1.996>
- Sundari, T., Robandi, B., & Suherman, Y. (2020). Pengembangan Kompetensi Pedagogik Guru Anak Gifted. In *SEJ (School Education Journal)* (Vol. 10, Issue 3).
- VanTassel-Baska, J., Hubbard, G. F., & Robbins, J. I. (2020). Differentiation of Instruction for Gifted Learners: Collated Evaluative Studies of Teacher Classroom Practices. *Roeper Review*, 42(3), 153–164. <https://doi.org/10.1080/02783193.2020.1765919>
- Vega, D., & Moore, J. L. (2018). Access to gifted education among African-American and Latino males. *Journal for Multicultural Education*, 12(3), 237–248. <https://doi.org/10.1108/JME-01-2017-0006>