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Enhancing Student Learning Discipline: Evaluating the Effectiveness of Information Services through the Contextual and Learning (CTL) Model

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Abstract

This research seeks to enhance student learning discipline through the provision of information services, employing a contextual teaching and learning (CTL) approach. The study adopted a quasi-experimental non-equivalent control group design, with 24 participants for the experimental group and 24 for the control group. The research instrument employed was a validated learning discipline questionnaire, assessed by three experts in the field of Guidance and Counseling. Data analysis was carried out using the Wilcoxon test. The findings of the study indicate a significant improvement in student learning discipline. These results underscore the effectiveness of information services with a contextual teaching and learning (CTL) approach in enhancing student learning discipline.

Keywords: information service, contextual and learning, learning discipline.

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Introduction

Character education surpasses moral education in significance as it extends beyond simplistic distinctions between right and wrong, encompassing the development of virtuous habits in life. Yaumi (2016) further expounds on character education, detailing the Ministry of National Education's emphasis on 18 fundamental values to be attained during implementation. These values span religiousness, honesty, tolerance, discipline, hard work, creativity, independence, democracy, curiosity, national spirit, love for the country, respect

for achievement, friendliness, commitment to peace, passion for reading, environmental concern, social responsibility, and care for others.

Setyawati & Subowo (2018) assert that adherence to relevant regulations is essential for the educational process to effectively achieve learning objectives. Discipline emerges as a core aspect of cultural and national character development, playing a pivotal role in facilitating practical learning, promoting positive behavior, and discouraging negative conduct. In this context, discipline signifies a student's moral disposition shaped through behaviors exemplifying values like obedience and order (Tu'u, 2004; Musbikin, 2019).

Kimberly & Barron (2012) defines discipline as a set of behaviors that support the learning process, emphasizing its critical role in effective learning. Sugiarto et al. (2019) underline discipline as a key factor in successful learning, considering it an essential attitude or behavior students should possess (Khafid, 2007; Widi et al., 2017; Sugiarto et al., 2019).

Discipline's presence alongside learning is credited with thwarting lethargy, boosting students' enthusiasm, and enhancing their learning capabilities (Asim, 2016). Conversely, students lacking discipline tend to exhibit unpreparedness for lessons, neglect assignments, engage in truancy, evade homework, and demonstrate incomplete learning (Tu'u, 2004; Misda et al., 2015).

In Vocational High Schools (SMK), discipline's significance is underscored by various studies (Aziz, 2016; Alam & Jaedun, 2017; Amelia, 2021). This emphasis on discipline aligns with SMK's fundamental objective of equipping students with skills to become proficient professionals while upholding strong work ethics. Despite these objectives, challenges persist, with some vocational school students showing low learning discipline (Kurniasari & Isnani, 2015; Ixtiarto, 2016; Anggraini et al., 2017).



Research by Sudirman et al. (2015) has identified various challenges pertaining to student learning discipline in schools, including chronic tardiness, a lack of respect for teachers, negligence in completing assignments, frequent absenteeism, diminished enthusiasm for attending classes, and underutilization of free time. Additionally, Setyawati and Subowo's study (2018) sheds light on learning discipline issues at Widya Praja Ungaran Vocational School through observational activities, revealing instances of tardiness, failure to meet homework deadlines, and completing assignments at school instead of at home. Furthermore, a significant number of students leave class late during changes in class hours, disrupting subsequent lessons. This disorderliness in teaching and learning activities indicates a persistent lack of student learning discipline.

Given these challenges, educators, especially guidance and counseling teachers, should strive to enhance students' understanding of the intrinsic value of discipline. The goal is for students to embrace discipline not out of coercion or fear of sanctions but as a result of their own self-awareness. To achieve this, guidance and counseling teachers must provide various services, including information services, designed to offer essential data and information to meet students' daily needs and align with their life goals (Azam, 2016; Hasibuan, 2018; Hasibuan, 2019).

Various methods, techniques, and learning models are available for approaching learning strategies, one of which is the Contextual Teaching and Learning (CTL) approach. CTL is a learning concept that helps teachers link instruction with real-world scenarios, enabling students to connect acquired knowledge with practical applications in their daily lives (Hasibuan, 2014; Sugiarto, 2020). Implementing the CTL approach is considered crucial in the learning process (Ramdani, 2018; Aneros, 2012; Andarini, 2013).

The use of the CTL approach in information services can assist guidance and counseling teachers in relating provided material to real-world situations, encouraging students to establish connections between knowledge and practical applications in their everyday lives.

This fosters positive attitudes and mitigates negative ones. Furthermore, research by Sanjayanti et al. (2013) demonstrates that the CTL approach enhances students' problemsolving skills and scientific attitudes. Additionally, Mulyasa (2011) asserts that the CTL approach is effective in improving student discipline in learning. Hasibuan (2014) stated that providing information services in a classical manner can be complemented by implementing the CTL approach format can employ various learning models, with CTL being one of them, capable of engaging students and fostering a deeper understanding of the subject matter.

Utilizing a Contextual Teaching and Learning (CTL) approach for delivering information services is expected to enhance students' comprehension of their learning discipline, thereby fostering heightened awareness and improved learning discipline. Mulyasa (2011) proposed that character education could be advanced by instilling discipline through active decision-making, a goal achievable through the implementation of the CTL learning model. The alignment of the CTL approach with the brain's natural learning processes, creating meaning by connecting academic content with students' everyday experiences (Kimberly & Barron, 2012), further underscores its effectiveness. Consequently, it is recommended to employ information services with a CTL approach for effectively enhancing students' learning discipline. Given these observations and research outcomes, there is a compelling interest in exploring the effectiveness of information services utilizing a CTL approach for enhancing student learning discipline.

Method

Participants

This study employs a quasi-experimental research design, specifically the non-equivalent control group type (Sugiarto, 2020) The research sample comprises 24 individuals in the experimental group and 24 in the control group. Informed consent was obtained from all participants, who willingly volunteered to participate without any form of coercion.



Trial Design

This study utilized a non-randomized controlled trial design, where participants were randomly assigned to either the experimental or control group in a 1:1 ratio. The research adhered to the guidelines outlined in the Consolidated Standards of Reporting Trials (CONSORT) (Hopewell et al., 2008; Moher et al., 2010; Eldridge et al., 2016; Butcher et al., 2022), as well as the principles of the World Medical Association Declaration of Helsinki (1964) with its last update in 2013 and the International Ethical Guidelines for Biomedical Research Involving Human Subjects (CIOMS 2016).

Material and Module

Before the activity is conducted, the Guidance Counselor or Counselor Teacher, serving as the facilitator in the information service, imparts understanding in a classical manner. This involves providing individuals interested in various aspects with the necessary information to perform a task, activity, or determine the direction of a desired goal or plan (Prayitno & Amti, 2004).

The guidelines for information services, using the CTL service model to enhance student discipline, consist of a series of activities organized to enable the Guidance Counselor or Counselor Teacher to effectively implement information services with CTL. These activities align systematically and sequentially with the goals set for the services. The delivery of each main topic occurs in consecutive time periods because each part is interrelated.

The content of each section can be enriched or modified based on the current or anticipated developments and needs related to the school's problem conditions. Regarding the provision of effective services, the guidelines include student evaluation and commitment. Evaluation aims to assess the level of knowledge, understanding, feelings, and actions of students after the service has been provided. Student commitment is essential to gauge the sincerity of students in implementing the discussed material.



The prescribed steps for the Guidance Counselor or Counselor Teacher in employing the guidelines are outlined progressively as follows:

- Begin by having the Guidance Counselor or Counselor Teacher, acting as a facilitator, thoroughly review the available guidelines.
- 2. Implement the information service guidelines through the Contextual Teaching and Learning (CTL) service model to enhance student discipline.
- 3. Assist students in continuing ongoing service activities.
- 4. Encourage students to actively participate and gain diverse experiences to foster insight, attitudes, and skills necessary for problem prevention.
- 5. Afford students the opportunity to pose questions.
- 6. Facilitate students in expressing feelings, thoughts, perceptions, insights, and suggestions among fellow members of the jigsaw group.
- 7. Evaluate student learning progress by employing assessment sheets and reflections to gauge the attainment of learning objectives.
- 8. To attain proficiency in CTL (Contextual Teaching and Learning), teachers can adhere to a structured set of instructional phases, comprising introduction, core activities, and closing service, as delineated by Sanjayanti (2013).

Phase	Form	Activities
Phase I	Constructivism	Educators guide students to work independently and construct their own knowledge and skills.
Phase II	Inquiry	Educators motivate students to discover knowledge and skills on their own.
Phase III	Questioning	Educators provide opportunities for students to ask questions about things they don't understand in the service.
Phase IV	Learning Community	Educators ask students to form heterogeneous study groups.
Phase V	Modelling	Educators use concrete models and explanations as service media.
Phase VI	Reflection	Educators guide students to reflect on the service they have received.
Phase VII	Authentic Assessment	Educators assess the learning outcomes of students to determine the individual learning outcomes of each student.

Table I

Interventions

Researchers conducted measurements both before and after treatment to observe changes in the research subjects. The experimental group received information services using the contextual teaching and learning (CTL) model during four sessions. The chosen instrument for assessment was a validated learning discipline questionnaire, evaluated by three experts in the field of Guidance and Counseling, all possessing doctorate and professorial qualifications. Following their feedback, the CTL module underwent meticulous enhancements, including additional content, improvements to instructional materials, and revisions to information presentation materials intended for the subjects.

Outcomes

In this study, the Learning Discipline questionnaire scale was employed, validated, and tested for reliability. Content validity, determined through expert judgment, assessed whether the items genuinely measured learning discipline. Two experts evaluated the scale's items, and the results of the reliability consistency test indicated a robust alpha reliability (α = 0.875) for the learning discipline scale.

Statistical Methods

The research data underwent scrutiny through both descriptive analysis and non-parametric statistical methods, utilizing SPSS version 25. The analysis employed the Wilcoxon signed-rank test for data analysis.

Result

This study aims to assess the impact of information services using the Contextual Teaching and Learning (CTL) approach on enhancing students' learning discipline. Conducted by Putra in 2018, the research aimed to provide an initial evaluation of learning discipline by examining two key aspects: action discipline and time discipline. Initial data, gathered through pretests, evaluated the learning discipline of both experimental and control groups, revealing predominantly low to medium levels before any intervention.

Vocational school students frequently faced issues related to learning discipline, such as tardiness through unconventional entrances, delayed completion and submission of assigned homework, completing homework meant for home at school, leaving school premises during class changes, wandering during lessons, and disruptive behavior. An initial survey on June 4, 2022, at SMKN I Enam Lingkung, using the Guttman instrument scale (yes/no) with 50 participating students, revealed concerning statistics: 45% of students were late, 55% did not organize study materials before class, 48% deviated from self-set study schedules, 45% exhibited disorganized study habits, 30% approached homework lackadaisically, and 45% stayed up late, hindering their ability to review lessons.

The research proposed that the improvement of discipline acquisition could be achieved by teachers delivering information services using the Contextual Teaching and Learning (CTL) model. The intervention consisted of four sessions, spaced four days apart. Hypothesis testing was carried out using the Wilcoxon signed ranks test and analyzed using SPSS version 25.00, as detailed in Table 2.

Table 2

The Result of the Wilcoxon Signed Ranks Test of Student Learning Discipline between the Pretest and Posttest Control Groups

		N	Mean Rank	Sum of Ranks
	Negative Ranks	0 a	.00	.00
Post test - Pre test	Positive Ranks	24 ^b	12.50	300.00
TOST LEST - TTE LEST	Ties	0 c		
	Total	24		
a. Post test < Pre test				

b. Post test > Pre test

c. Post test = Pre test



Referring to Table 2, the data reveals a notable enhancement in students' learning discipline following the administered treatment. Specifically, the 24 respondents within the experimental group demonstrated improvement in their calculations, evident in the transition from pretest to posttest. Consequently, the outcomes suggest a substantial transformation in the experimental group's performance following the implementation of information services through the contextual teaching and learning (CTL) model. This is underscored by the observation that among the 24 students exposed to the CTL model, posttest scores surpassed their respective pretest scores.

Table 3 The Result of Significance Test for Increasing Learning Discipline

	Post test - Pre test
Z	-4.286 ^b
Asymp. Sig. (2-tailed)	,000
a Wilcoxon Signed Banks Test	

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Table 3 displays the Asymp value (0.000) for student learning discipline, alongside the significance value of 0.000 in a two-tailed test. Notably, this significance value falls below the conventional threshold of 0.05 (0.000 < 0.05), indicating a substantial disparity in student learning discipline levels between pretest and posttest results. Consequently, it can be inferred that the employment of the Contextual Teaching and Learning (CTL) model for information services effectively enhances student learning discipline.

Discussion

The analysis findings reveal that information services employing the contextual teaching and learning (CTL) approach have a discernible impact on improving students' learning discipline. Implementation of information services through the CTL approach assists guidance and counseling teachers in establishing meaningful connections between course content and real-world scenarios. By encouraging students to relate their acquired knowledge to practical applications in their daily lives, this approach enables teachers to foster positive attitudes and deter negative ones (Ssemugenyi, 2023). Supporting the efficacy of the CTL approach in enhancing student discipline, Aziz et al., (2023) emphasizes its positive outcomes.

Under the CTL framework, students find themselves immersed in a learning environment that intricately links their academic endeavors to real-world situations (Aziz et al., 2023). As they establish these connections, students become keenly aware of the direct correlation between disciplined efforts and tangible, practical benefits. This realization acts as a potent catalyst for positive reinforcement, motivating students to cultivate more organized and focused learning habits (Kaji & Ono, 2021). In the CTL classroom, students are not passive recipients of knowledge; rather, they are active observers and participants. They learn not only from their instructors but also from their peers. Through these observations, students witness the diligence and commitment of their fellow learners (Yamini et al., 2023). As the outcomes of contextual learning manifest - superior comprehension and the ability to practically apply acquired knowledge - students find themselves inspired to adopt disciplined learning behaviors, mirroring the examples set by their peers (Al-Said, 2023). This process allows students to experience a sense of autonomy and competence as they apply their knowledge to real-world scenarios (Aziz et al., 2023). This engagement fulfills their inherent psychological needs for relatedness, autonomy, and competence, ultimately propelling them towards disciplined learning as a self-regulated endeavor.

The CTL approach, as advocated by Kimberly & Barron (2012), cultivates critical thinking and problem-solving skills, integral to both discipline and self-regulation. As students develop these cognitive abilities, their commitment to academic excellence, emphasized by Sugiarto (2020), naturally deepens. Within the CTL environment, students perceive learning not merely as an academic exercise but as a meaningful journey aligned with personal goals



and aspirations (Amelia, 2021). This perception sparks a lasting determination to exhibit disciplined behavior as they earnestly pursue educational success.

In summary, the adoption of information services using the CTL approach initiates a profound transformation in this academic narrative. A nuanced exploration of psychological theories reveals that this innovative pedagogical method creates a nurturing educational environment where intrinsic motivation, cognitive development, and positive reinforcement converge to shape disciplined and self-regulated learners. This academic journey attests to the potency of pedagogical innovation, where students not only acquire knowledge but also cultivate the indispensable life skill of discipline for effective application in future endeavors. The CTL approach, supported by rigorous academic inquiry and empirical evidence, stands as a beacon of effective educational practice. However, this study acknowledges limitations, notably the absence of randomization due to infeasible school conditions, prompting a recommendation for further research to incorporate randomization.

Conclusion

The research results clearly demonstrate that contextual teaching and learning (CTL) through information services enhances the development of discipline in a learning environment. This method enables Guidance Teachers to establish connections between provided material and real-world situations, fostering students' ability to apply knowledge in their daily lives. Consequently, the implementation of information services with the CTL approach, as illustrated in this research, serves as a valuable resource for counselors addressing social issues, particularly among students, and promoting positive improvements in learning discipline.



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