

Implementation Of The Tell-Show-Do Method In The Development Of Holistic Learning: Optimizing The Achievements Of 3 Learning Domains (Cognitive, Affective, Psychomotor)

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ABSTRACT

Introduction: Comprehensive competency integrating cognitive, affective, and psychomotor domains is the primary goal of nursing education. However, these domains are often not optimally achieved through conventional learning methods. The Tell-Show-Do (TSD) method is expected to provide an effective approach to support holistic learning. However, evidence on TSD in nursing education remains limited. This study aimed to analyze the effectiveness of the TSD method in optimizing holistic learning outcomes.

Methods: This quasi-experimental study with a pre-test, post-test, and control group design was conducted among 122 Diploma III nursing students at the Pasuruan City Campus, Indonesia. Participants were divided into a treatment group (n=61) and a control group (n=61). Data were analyzed using paired sample t-tests, independent sample t-tests, and the Mann-Whitney U test, with a significance level of $\alpha=0.05$.

Results: The TSD method demonstrated statistically significant improvements across all three domains: cognitive ($\Delta=+7.77$, $p<0.001$, $d=2.76$), affective ($\Delta=+9.72$, $p<0.001$, $d=3.47$), and psychomotor ($\Delta=+10.26$, $p<0.001$, $d=3.80$). The control group showed no significant improvement ($p>0.05$).

Conclusions: The Tell-Show-Do method significantly improves learning outcomes across cognitive, affective, and psychomotor domains, with the greatest impact observed in psychomotor skills. Integrating TSD into nursing education curricula is recommended.

Introduction

Nursing education is a professional field that demands comprehensive competency development, encompassing cognitive, affective, and psychomotor aspects. These three aspects must be optimally integrated so that students are able to provide safe, effective, and high-quality nursing care. Advances in health science and the demands of globalization require nursing graduates to be highly competitive and prepared for complex clinical practice. Competency achievement is measured not only by mastery of theory but also by professional attitudes and practical skills. Nursing educational institutions need to ensure that the learning process supports the achievement of these three domains. Various studies have shown that learning methods significantly influence the success of nursing education (Manullang, 2025; Mardiah, 2025). Appropriate learning methods can significantly improve graduate quality. Ineffective



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learning methods can hinder students' overall competency achievement. Therefore, there is an urgent need to identify and implement innovative and evidence-based learning methods that can effectively integrate all three domains of learning and improve students' holistic competencies in nursing education

The reality on the ground shows that conventional learning methods are still widely used in nursing education. Studies report that more than 60–70% of classroom learning in health education globally still relies on lecture-based approaches. One-way lectures tend to dominate the classroom learning process. This approach emphasizes knowledge transfer over the development of professional skills and attitudes. Students are often less actively involved in the learning process. Only around 30–40% demonstrating active participation during conventional sessions. This condition results in a low ability to apply knowledge in clinical practice, where up to 50% of nursing students report difficulties translating theory into practice. Affective domains such as empathy and therapeutic communication are also underdeveloped. Previous research has shown that conventional methods have limitations in integrating the three learning domains (Nurjariah et al., 2022). This presents a major challenge in improving the quality of nursing education.

Various studies have examined the effectiveness of active learning methods in improving nursing student competencies. Practice-based and simulation-based learning methods significantly improve students' clinical skills. Active learning approaches also increase student motivation and engagement in learning. Research shows that interactive methods improve learning outcomes in the cognitive and psychomotor domains. The affective domain is still not optimally integrated into some learning methods. Some methods require significant resources, such as laboratories and trained instructors. Limited facilities and infrastructure present a barrier for educational institutions. The need for effective, efficient, and easy-to-implement learning methods is becoming increasingly important.

The Tell-Show-Do (TSD) method is one learning approach with the potential to address these needs. Originally developed in pediatric dentistry education to improve procedural understanding, TSD consists of three stages: verbal explanation (tell), demonstration (show), and hands-on practice (do). This structured approach enables students to acquire knowledge progressively while directly applying skills. Research by Bharath et al (2018) demonstrated that TSD is effective in improving procedural understanding and reducing anxiety.

Compared to other instructional approaches, TSD offers a distinct combination of cognitive, observational, and experiential learning. Simulation-based learning provides high-fidelity clinical scenarios but often requires substantial resources and infrastructure. Problem-based learning (PBL) emphasizes critical thinking and self-directed learning but may not sufficiently support step-by-step psychomotor skill acquisition. Demonstration-based instruction allows observation of procedures; however, it may limit active student engagement if not followed by structured practice. In contrast, TSD integrates explanation, demonstration, and immediate practice in a single sequence, making it relatively simple to implement while supporting all three learning domains simultaneously.

Despite these advantages, the application of the TSD method in nursing education remains limited, as most studies have focused on dentistry. This indicates a gap in the literature regarding its effectiveness in nursing contexts. Given that nursing education emphasizes clinical practice and skill mastery, the principles of TSD are highly relevant. However, empirical evidence comparing its effectiveness with other established methods in nursing education is still lacking.



Therefore, further research is needed to evaluate the effectiveness of TSD and its potential contribution to improving holistic learning outcomes and student confidence in performing nursing procedures.

The main problem in nursing education lies in the poor integration of cognitive, affective, and psychomotor aspects. This condition impacts students' readiness for clinical practice. The learning methods used do not fully support comprehensive competency development. The need for innovative solutions in learning is crucial. The TSD method was chosen as an alternative solution because of its systematic and applicable approach. The stages of the TSD method enable students to understand and practice skills effectively. Implementing this method has the potential to improve the quality of learning. It is also relatively easy to apply in various learning situations.

This research was motivated by the need to improve the quality of nursing education in Indonesia. Nursing graduates are expected to possess superior competencies and global competitiveness. Innovation in learning methods is a crucial factor in achieving this goal. This research is expected to contribute to the development of effective learning methods. The results can serve as a reference for nursing educational institutions. Empirical evidence allows for broader implementation of the TSD method. This method has the potential to improve the quality of nursing graduates. This research has strategic value in the development of nursing education.

This study aims to test the effectiveness of the Tell-Show-Do method in teaching Medical-Surgical Nursing II for D3 Nursing students. This study examines the effect of the TSD method on students' cognitive, affective, and psychomotor aspects. It also evaluates the advantages and limitations of the TSD method in nursing learning. The results are expected to provide a comprehensive overview of the method's effectiveness. This research contributes to the development of nursing education theory and practice. It also provides practical benefits for lecturers and students. Implementing the TSD method has the potential to improve the overall quality of learning. Improving the competency of nursing graduates is expected to impact the quality of healthcare services.

Methods

This study used a quasi-experimental design with a pre-test/post-test control group design to compare changes in learning outcomes between the intervention and control groups. The study received ethical approval from the Health Research Ethics Committee of the Faculty of Nursing, University of Jember. The study was conducted at the Diploma III Nursing Study Program, University of Jember, Pasuruan City Campus. The study population included all students taking the Medical-Surgical Nursing II course in the even semester of the 2025/2026 academic year. The study sample consisted of 122 students, divided into 61 participants in the intervention group and 61 participants in the control group. The researchers used a purposive sampling technique based on inclusion criteria, which included active students, attending related courses, willing to participate, and having a minimum attendance of 80 percent. All participants signed informed consent, and the researchers guaranteed data confidentiality throughout the study. The intervention group received instruction using the Tell-Show-Do method, while the control group used conventional methods such as lectures, limited demonstrations, and independent practice.

The research instrument covers three domains, namely cognitive, affective, and psychomotor, which have undergone validity and reliability tests. Cognitive measurement uses a 50-item multiple-choice test with a content validity index value of 0.89 and a Cronbach's alpha reliability of 0.87. Affective measurement uses a 20-item Likert scale observation sheet with



expert judgment validity and a Cronbach's alpha reliability of 0.85. Psychomotor measurement uses a 25-item skills checklist with a content validity index value of 0.91 and an inter-rater reliability of 0.92. The intervention procedure in the treatment group includes a 15-minute tell stage, a 20-minute show stage, a 45-minute do stage, and a 10-minute review stage, while the control group follows conventional learning with an adjusted duration. Data collection is carried out through pre-tests and post-tests as well as observations during the learning process. Data analysis used IBM SPSS Statistics version 26 with descriptive tests, the Shapiro-Wilk normality test, Levene's homogeneity test, and hypothesis testing using the paired sample t-test (Wilcoxon) and the independent sample t-test (Mann-Whitney). Researchers set a significance level of 0.05 with a two-tailed test. Researchers also calculated the effect size using Cohen's d to determine the magnitude of the intervention's influence.

Results

Table 1. Demographic Characteristics of Respondents in the Intervention and Control Groups

Characteristics	Treatment (n=61)	Control (n=61)	Total (n=122)
*Gender			
Male	18 (29.5%)	17 (27.9%)	35 (28.7%)
Female	43 (70.5%)	44 (72.1%)	87 (71.3%)
*Age (years)			
Mean ± SD	19.8 ± 1.2	19.6 ± 1.1	19.7 ± 1.2
*Previous Semester GPA			
Mean ± SD	3.42 ± 0.28	3.38 ± 0.31	3.40 ± 0.30

Based on table 1 there was no significant difference between the two groups in demographic characteristics ($p > 0.05$), indicating that the two groups were equivalent before the intervention.

Table 2. Average Pre-test and Post-test Scores for Each Learning Domain

Domain	Group	Pre-test	Post-test	Gain Score	% Increase
Cognitive	Treatment	67.85 ± 5.42	75.62 ± 6.18	+7.77	11.45%
		70.44 ± 5.89	70.30 ± 5.76	-0.15	-0.21%
	Control	68.80 ± 5.67	78.52 ± 5.94	+9.72**	14.13%
		73.34 ± 6.12	73.15 ± 5.98	-0.20	-0.27%
Affective	71.13 ± 5.21	81.39 ± 5.87	+10.26	14.43%	
	75.33 ± 5.45	74.97 ± 5.32	-0.36	-0.48%	
Psychomotor	Control	5.45	74.97 ± 5.32	-0.36	-0.48%



Based on table 2 The treatment group experienced improvement in all three domains, while the control group was relatively stable or experienced minor decline.

Table 3. Results of the Shapiro-Wilk Normality Test for Gain Scores

Domain	Kelompok	W-Statistic	p-value	Status
Cognitive	Treatment	0.943	0.027	Abnormal
	Control	0.891	<0.001	Abnormal
Affective	Treatment	0.971	0.236	Normal
	Control	0.887	<0.001	Abnormal
Psychomotor	Treatment	0.968	0.184	Normal
	Control	0.879	<0.001	Abnormal

Based on table 3 . The results of the Shapiro-Wilk normality test indicate that the distribution of gain score data is not completely normal in all groups. The cognitive domain in the treatment group (p=0.027) and control (p<0.001) showed a non-normal distribution. The affective domain was only normally distributed in the treatment group (p=0.236), while the control group was not normal (p<0.001). The psychomotor domain also showed a normal distribution in the treatment group (p=0.184), but was not normal in the control group (p<0.001). These findings indicate that most of the data, especially in the control group, did not meet the assumption of normality. This condition is the basis for using non-parametric tests as an alternative analysis to ensure the accuracy of the research results.

Table 4. Results of the Homogeneity of Variance Test Using Levene's Test

Domain	F-value	df1	df2	p-value	Status
Cognitive	66.49	1	120	<0.001	Not Homogeneous
Affective	53.19	1	120	<0.001	Not Homogeneous
Psychomotor	44.54	1	120	<0.001	Not Homogeneous

Based on table 4. Levene's test results showed that all domains had p-values <0.001, indicating that the variance between groups was not homogeneous. This condition indicates that the homogeneity assumption was not met, and the analysis needs to be confirmed with appropriate alternative tests.

Table 5. Results of the Within-Group Difference Test (Pre-test and Post-test)

Domain	Group	Mean Diff	t/W-value	p-value	95% CI	Significant
Cognitive	Treatment	7.77	t=-15.28	<0.001	[6.72, 8.82]	Yes
	Control	-0.15	t=1.35	0.182	[-0.37, 0.07]	No
Affective	Treatment	9.72	t=-19.26	<0.001	[8.71, 10.73]	Yes
	Control	-0.20	t=1.69	0.096	[-0.44, 0.04]	No
Psychomotor	Treatment	10.26	t=-21.35	<0.001	[9.28, 11.24]	Yes
	Control	-0.36	t=2.25	0.028	[-0.68, -0.04]	Marginal

Based on table 5. The within-group test results showed that the treatment group experienced significant improvements in all domains (p<0.001), while the control group showed no significant



changes except for a marginal decrease in the psychomotor domain ($p=0.028$). These findings indicate that the Tell-Show-Do method intervention is effective in improving learning outcomes compared to conventional methods.

Table 6. Results of the Between-Group Difference Test (Intervention and Control)

Domain	Test	Statistic	df	p-value	95% CI	Cohen's d
Cognitive	T-Test	t=15.22	120	<0.001	[6.85, 8.99]	2.76
	Mann-Whitney	U=3687	-	<0.001	-	-
Affective	T-Test	t=19.15	120	<0.001	[8.68, 11.16]	3.47
	Mann-Whitney	U=3716.5	-	<0.001	-	-
Psychomotor	T-Test	t=20.96	120	<0.001	[9.21, 12.03]	3.80
	Mann-Whitney	U=3716.5	-	<0.001	-	-

Based on table 6. The between-group test results showed significant differences between the treatment and control groups across all domains ($p<0.001$), both based on the T-test and the Mann-Whitney test. The effect size was very large (Cohen's $d > 2$).

Table 7. Interpretation of Effect Size (Cohen's d) for Each Learning Domain.

d value	Interpretation	Cognitive	Affective	psychomotor
0.2	Small Effects	x	x	x
0.5	Medium Effect	x	x	x
0.8	Large Effect	x	x	x
>0.8	Very Large Effect	✓ (2.76)	✓ (3.47)	✓ (3.80)

Based on table 7. The effect size values in all domains show a very large effect category with Cohen's d values of 2.76 for cognitive, 3.47 for affective, and 3.80 for psychomotor, respectively.

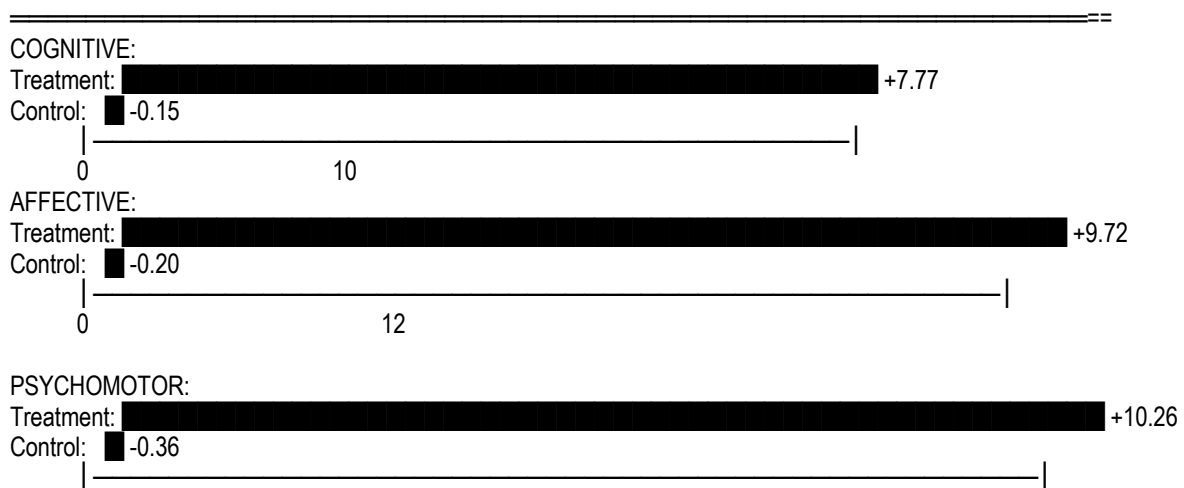


Figure 1. Comparison of Gain Scores between the Intervention Group and the Control Group in Each Learning Domain

Discussion

Effectiveness of Tell-Show-Do in the Cognitive Domain

The results showed that the Tell-Show-Do (TSD) method significantly improved students' cognitive achievement, with a mean gain score of +7.77 points ($p < 0.001$; $d = 2.76$). This improvement demonstrated a significant difference between the intervention and control groups in knowledge acquisition. The treatment group experienced consistent improvement, while the control group tended to stagnate. These data indicate that the TSD method is more effective than conventional methods in improving conceptual understanding. This finding corroborates previous research demonstrating the superiority of demonstration- and practice-based methods. Research by Elicherla et al (2024) also found that TSD was more effective than the Ask-Tell-Ask technique in improving procedural understanding. These results demonstrate the consistent effectiveness of TSD in various health education contexts. This empirical evidence supports the belief that TSD can significantly improve the cognitive domain.

Improvements in the cognitive domain can be explained through theoretical approaches to learning. Cognitive Load Theory explains that effective learning occurs when cognitive load is optimally managed. The TSD method can reduce extraneous load through the presentation of clear and structured information. The "tell" phase helps students understand basic concepts through verbal explanations. The "show" phase provides concrete visualizations that strengthen the memory encoding process. The "do" phase encourages students to directly retrieve and apply knowledge. The combination of these three phases increases the efficiency of information processing. This theory explains how the TSD structure supports more effective learning (Nursafitri, 2025; Siregar, 2025)

Previous research also supports the effectiveness of demonstration- and practice-based methods in improving cognitive skills. Elicherla et al (2024) stated that students who received TSD-based learning showed significant improvements in procedural understanding. This method provides a more concrete learning experience than lectures. The visual approach and hands-on practice help students connect theory to real-life situations. Other research also shows that active learning improves long-term knowledge retention. The integration of various learning modalities in TSD strengthens conceptual understanding. These findings reinforce the belief that TSD not only improves learning outcomes but also the quality of understanding. Previous research supports the consistent effectiveness of this method (Aldousari & Aldosari, 2025; Almekkawi et al., 2025).

Researchers argue that the success of TSD in improving cognitive domains is influenced by its systematic learning structure. This method allows students to learn gradually, from understanding to application. The learning process becomes more meaningful because students are actively involved. Students not only receive information but also process and apply it. This approach is highly suited to the characteristics of nursing learning, which emphasizes the integration of theory and practice. The use of TSD can be a solution to overcome the weaknesses of conventional methods. Implementing this method has the potential to improve the overall quality of learning. Researchers concluded that TSD is effective in improving the cognitive outcomes of nursing students.



Effectiveness of Tell-Show-Do on the Affective Domain

The results showed that the TSD method significantly improved the affective domain, with a mean gain score of +9.72 points ($p < 0.001$; $d = 3.47$). This improvement reflects positive changes in students' attitudes, motivation, and self-confidence. The intervention group demonstrated better attitudinal development than the control group. These data indicate that the learning method has an impact on students' emotional aspects. These results align with research by DuVal (2025), which showed that TSD can reduce anxiety and increase positive attitudes. This attitudinal change is crucial in nursing education, which demands empathy and professionalism. This fact indicates that TSD impacts not only cognitive but also affective domains. This improvement is an indicator of successful holistic learning (DuVal, 2025).

Social Cognitive Theory explains that learning occurs through observation and direct experience. Students observe the instructor as a model during the show phase. This observation shapes their understanding and attitudes toward the actions taken. Practical experience during the do phase provides mastery experiences that enhance self-efficacy. Self-efficacy plays a crucial role in developing a positive attitude toward learning. Gradual exposure in TSD reduces students' anxiety about new material. A clear learning structure helps students feel more confident. This theory explains the mechanism of affective enhancement in the TSD method (Cheng et al., 2025; Nan, 2025).

Research by Arju (2025) shows that clear demonstrations can increase students' confidence in learning skills. DuVal (2025) also found that the TSD approach is effective in reducing anxiety in a healthcare context. Early successful experiences in guided practice provide intrinsic motivation for students. Students feel more prepared and confident in facing practical tasks. Learning that involves active interaction also increases emotional engagement. This condition impacts a positive attitude towards the learning process (DuVal, 2025). Support from various studies strengthens the effectiveness of TSD in improving the affective domain. These results indicate that the learning approach influences students' psychological aspects (Faraji et al., 2025; Hobenu, 2025).

Researchers argue that the success of TSD in the affective domain is influenced by a supportive learning environment. This method provides a safe and structured learning experience. Students have the opportunity to learn without excessive pressure. The gradual process helps students overcome the fear of making mistakes. Constructive feedback from instructors strengthens learning motivation. Positive experiences during learning shape positive attitudes. This approach is highly relevant in nursing education, which emphasizes the values of empathy and professionalism. Researchers concluded that TSD was effective in improving students' affective aspects.

Effectiveness of Tell-Show-Do in the Psychomotor Domain

The results showed the greatest improvement in the psychomotor domain, with a mean gain score of +10.26 points ($p < 0.001$; $d = 3.80$). This improvement indicates that the TSD method is highly effective in improving students' practical skills. The intervention group demonstrated better performance than the control group. These data indicate that the practice-based learning method produces optimal results. This finding aligns with research by Al-Beltagi (2025) and Faza et al (2021), which found TSD effective in learning procedural skills. These results demonstrate that TSD aligns with the characteristics of clinical learning. This fact reinforces that the TSD



method has a significant impact on the psychomotor domain. This improvement is an indicator of successful skill learning.

Motor learning theory explains that skills develop through observation and repeated practice. The mirror neuron system plays a role in the process of imitating observed movements. Students observe the instructor's demonstration and imitate the movements. This process accelerates motor skill learning. Repeated practice strengthens neural connections that support movement automation. Feedback during practice helps students correct errors directly. This process improves skill accuracy and speed. This theory explains the mechanism of psychomotor improvement in the TSD method (Simatupang et al., 2024).

Research by Faza et al (2021) showed that repetition with scaffolding significantly improves muscle memory. Research by Haryani and Damhuji (2024) emphasized the importance of integrating the tell, show, do, and review stages in skills learning. This approach provides a comprehensive and structured learning experience. Students have the opportunity to understand, observe, and practice skills. Immediate feedback enhances the quality of learning. This method also increases confidence in performing clinical procedures. Previous research supports the consistent effectiveness of TSD in the psychomotor domain. These results reinforce TSD as an appropriate method for skills learning (Haryani & Damhuji, 2024; Madinah et al., 2022).

Researchers argue that the success of TSD in the psychomotor domain is influenced by the combination of demonstration and hands-on practice. This method provides a realistic and applicable learning experience. Students can learn from mistakes through direct feedback. The learning process is more effective because it involves direct experience. This approach aligns with the needs of practice-oriented nursing learning. The use of TSD can improve student readiness for clinical practice. This method also helps students achieve optimal competency. Researchers concluded that TSD was very effective in improving students' psychomotor skills.

Conclusion

This study concluded that the Tell-Show-Do method effectively improved the learning outcomes of D3 Nursing students in the cognitive, affective, and psychomotor domains with significant improvements and very large effect sizes across all domains, as well as the largest effect in the psychomotor domain, which is in accordance with the characteristics of the skills-based method. The control group did not show significant improvements, thus strengthening the effectiveness of the intervention provided. These findings indicate that the Tell-Show-Do method is able to optimally integrate knowledge, attitudes, and skills and has high relevance for application in nursing vocational education to improve clinical practice readiness. Future research needs to test the effectiveness of this method in the long term, use a more robust experimental design, and develop more objective measurements so that the research results are more valid and can be generalized widely.

Ethics approval and consent to participate

This study has received ethical approval from the Health Research Ethics Committee (KEPK) Faculty of Nursing, University of Jember. All procedures involving human participants were conducted in accordance with ethical standards. Written informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, and confidentiality of their data was strictly maintained.



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