



RESEARCH PAPER

Journal Writing and Its Effect on Reflective Practice and Critical Thinking of Prospective Teachers

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ABSTRACT

The present study aimed to examine the effect of journal writing on the development of reflective practice and critical thinking of prospective teachers within the positivist paradigm. The researcher employed an A-B-A single subject research design. This study was experimental in nature. The population of the study was all comprised prospective teachers enrolled in the Department of Education at the University of Lahore. A purposive sampling technique was used to select eighteen students from the B.Ed. (Hons) Elementary 7th semester program. The intervention spanned 16 weeks and adhered to an A-B-A withdrawal structure, which was adapted from a fundamental time-series design. It consisted of three phases: an initial baseline period without any intervention, a treatment phase during which critical-thinking strategies were introduced, and a withdrawal phase that reverted to baseline conditions. Data were analysed by using inferential statistics, particularly a one-way repeated measures ANOVA, which remained suitable for exploring changes within subjects over several time intervals. The finding exposed a statistically significant increase in participants' critical-thinking scores during the intervention. On the base of these results, it is advisable for teacher education programme to integrate reflective journal writing, mentoring experiences, and peer feedback. Furthermore, professional development workshops and training sessions focused on plans for reflection and critical thinking could further improve the professional development of future educators.

Keywords: Reflective Practices, Critical Thinking, Journal Writing, Prospective Teachers

Introduction

This study investigates the effect of journal writing on the development of reflective practice and critical thinking of prospective teachers. While previous research shows a connection between reflective practice and Journal Writing, there is a lack of empirical indication in this field. Thus, the main purpose of this study is to examine whether integrating reflective practices can enhance certain aspects of critical thinking through Journal Writing. Reflective practice helps as a valuable approach for deeper learning and individual development. It involves reviewing past experiences to excerpt lessons that can be practical in the future.

This method aids individuals in connecting the gap between theory and practice and in connecting current knowledge with fresh perceptions. Reflective writing involves more than simply narrating events and spirits; it promotes critical thinking and analytical learning. Reflective journals have been utilized in educational environments for a considerable time as effective means to encourage student autonomy and improve They promote student autonomy and facilitate meaningful learning experiences in the classroom. According to Connell and Dymont (2006), journaling encourages students to think critically about their learning and improves their writing skills.

Farrah (2011) explored how reflective journal writing can enhance university students' English writing skills, creativity, motivation, and critical thinking. Similarly, Lear (2012) studied the impact of directed reflective journals on students' metacognitive awareness and motivation. Journal writing evolves into a dialogic process between student teachers and teacher educators, educators must be thoughtful in how they respond, as their feedback significantly influences the depth and value of the dialogue (Abednia et al., 2013).

Theoretical Background

Several theoretical perspectives teachers support the use of reflective journals in education. Farrell (2012) demonstrated how teachers can utilize reflective writing for professional development. Reflective journals not only support teacher-student relationships but also provide a documented journey of the writer's personal and professional growth.

Warning and Evans (2014) argued that reflective journals help students develop deeper learning strategies. Journal writing improves students' critical thinking abilities and supports teachers in refining their instructional practices. Overall, reflective journals empower students to take ownership of their learning and engage with knowledge in a more authentic and meaningful way. Reflective writing supports students in developing self-awareness and preparing for future learning by deepening their understanding of both what they are learning and how they are learning it. Hall et al., (2004) argue that a thoughtfully designed educational process can foster deeper levels of awareness than traditional instructional methods.

Reflective journals also enable students to engage multiple forms of intelligence beyond purely cognitive abilities (Gardner et al., 1999). By incorporating emotional experiences into their writing, students can reflect not only on their thinking processes but also on their emotional responses (Baresh, 2022).

Alt et al., (2020) emphasizes that reflective journaling requires an "engaged pedagogy's reciprocal relationship between teacher and student that moves beyond mere empowerment. This approach advocates for a holistic model of education in which both teachers and students learn and grow through shared experiences.

Reflective journals can serve as effective tools for teaching and guiding students in the development of higher-order thinking skills, including reflective practice and critical thinking. They also enable the monitoring of students' personal and professional growth, ultimately cultivating professionals who are thoughtful and reflective in their practice (Wale, 2020). Evaluating reflective journals has been proposed as an innovative approach to promote student-directed learning by encouraging learners to critically engage with their educational experiences and explore subject matter in greater depth. In clinical nursing education, for instance, critical reflective journaling has been identified as a valuable strategy for enhancing student learning and fostering deeper understanding (Hwang et al., 2020).

Reflective journal writing

Journal writing is a multifaceted reflective activity that supports critical reflection, self-expression, and professional learning (Bem, 2021).). Reflective journals enable individuals to document experiences, analyze actions, and reassess understanding, often fostering deeper insight and peer sharing (Cruz, 2024). For teachers, journal writing helps as a systematic reflective tool that records teaching experiences and reflections, creating a foundation for ongoing professional growth. Research indicates that reflective journaling helps teachers to critically examine their practices, identify weaknesses and strengths to

develop effective teaching strategies when theory alone is insufficient (Göker & Goker, 2020).

Reflective notebooks enable students to document daily practicum experiences, promoting self-awareness, self-confidence, critical thinking, and problem-solving skills (Murillo-Llorente et al., 2021). Reflective journal writing has been widely recognized in higher education for enhancing metacognitive awareness and moving learners beyond descriptive reflection toward deeper self-reflection (Wang, 2025). These journals also provide educators with valuable insight into students' cognitive and emotional development, supporting timely and targeted pedagogical interventions.

Assessment feedback practices that emphasize dialogue and collaboration further enhance student motivation and self-directed learning (Morton et al., 2023). Despite these benefits, empirical research examining the combined impact of reflective journal writing on reflective practice and critical thinking particularly among prospective teachers in developing countries remains limited.

Therefore, this study aimed to examine the effect of journal writing on the development of reflective practice and critical thinking of prospective teachers. The aim of the study of reflective journal writing and its effect on reflective practice and critical thinking of prospective teachers is to explore how reflective journal writing enhance reflective practice and critical thinking of prospective teachers. It's also help teachers how journaling helps prospective teachers to critically study them improve decision-making skills experiences, and foster professional and cognitive growth.

Reflective practice is measured a vital factor of effective teacher education development self-awareness, critical thinking, and ongoing professional progress. However, prospective teachers often lack planned opportunities to reflect intensely on their experiences and join theoretical knowledge with classroom realities. Most teacher education programs highlight content delivery and evaluation, neglecting the development of reflective and higher-order thinking skills.

Reflective writing has been documented as a valuable approach to improve reflection and critical thinking, but its effectiveness among prospective teachers is still under-researched. Previous studies mostly focus on in-service teachers or depend on on qualitative designs, offering limited empirical evidence. Furthermore, there is a lack of research in developing countries where teacher training faces unique challenges. This study addresses this gap by investigating the effect of journal writing on the development of reflective practice and critical thinking of prospective teachers using an A-B-A research design. Therefore, this study addresses this gap by examining the effect reflective journal writing and its effect on reflective practice and critical thinking of prospective teachers.

Research Hypotheses

Following were the hypotheses of the study.

H₀₁: There is no significant effect of journal writing on reflective practices and critical thinking of prospective teachers during baseline phase.

H₀₂: There is no significant effect of journal writing on reflective practices and critical thinking of prospective teachers during treatment phase.

H₀₃: There is no significant effect of journal writing on reflective practices and critical thinking of prospective teachers during withdrawal phase.

Material and Methods

The present study aimed to examine the effect of journal writing on the development of reflective practice and critical thinking of prospective teachers. The research was grounded in a positivist paradigm and followed an ABA research design. The population consisted of all prospective teachers enrolled in the Department of Education at the University of Lahore, and the sample included eighteen B.Ed. (Hons) Elementary students from the 7th semester. The intervention lasted 16 weeks and followed an A-B-A withdrawal structure, adapted from a basic time-series design. The study was conducted in three phases following an A-B-A design: an initial baseline period with no intervention, a treatment phase in which critical-thinking strategies were introduced, and a withdrawal phase that returned to baseline conditions. The participants consisted of all B. Ed students selected through purposive sampling, as this semester includes coursework on critical thinking and reflective practices. All 18 students enrolled in this semester took part in the study. The intervention was delivered through 90-minute classroom sessions, held twice a week, during which students practiced writing skills through reflective journal. Weekly performance tests were developed to assess students' writing skills. Data were investigated through inferential statistics, using by a one-way repeated measures ANOVA, which provided a suitable method for evaluating within-subject changes across different time intervals.

Intervention

The intervention focused on the implementation of journal writing to develop reflective practice and critical thinking among B. Ed (Hons.) students. Conducted over 16 weeks, the course included two 1.5-hour sessions per week, emphasizing active, student-centered learning. The primary goal was to develop prospective teachers' critical and reflective writing skills through structured journal writing and related reflective activities.

Each session began with a brief review of prior knowledge, followed by guided reflective journal writing focused on prospective teachers' reflective practice and critical thinking. Structured reflective prompts encouraged analysis of teaching experiences, questioning of assumptions, and problem-solving. Reflective journals served as the central tool for weekly documentation, analysis, and evaluation of learning experiences, supporting the development of critical thinking through systematic reflection based on experiential learning models such as Kolb's and Gibbs's.

Students participated in activities such as mind-mapping, structured reflections, peer discussions, and real-life scenario analysis. Journal prompts encouraged self-awareness, evidence-based reasoning, and evaluation of teaching practices. Assignments involved summarizing key learnings, evaluating classroom experiences, and composing reflective essays using guided frameworks.

The intervention was designed to cultivate higher-order thinking through continuous self-assessment, peer collaboration, and critical engagement with course content. Each session concluded with reflective journal entries and targeted follow-up tasks. Overall, the intervention aimed to enhance prospective teachers' ability to think reflectively and critically, both in academic contexts and future teaching practice.

Results and Discussion

Table 1
Mauchly's Test of Sphericity of journal writing on reflective practices and critical thinking of prospective teachers during during Baseline Period

Within Subject Effect	Mauchly's W	Approx. Chi-Square	Df	Sig.	Greenhouse-Geisser (Epsilon ^s)
Baseline Period	.811	1.253	9	.534	.841

Mauchly's Test of Sphericity was applied to examine whether the assumption of sphericity was satisfied for reflective practices and critical thinking of prospective teachers during the baseline phase, prior to the implementation of reflective journal writing. The results of the test were non-significant ($W = 0.811$, $\chi^2 = 1.253$, $df = 2$, $p = .534$), indicating that the assumption of sphericity was not violated. This shows that journal writing had no significant effect on reflective practices and critical thinking at baseline.

Table 2
The Effect of journal writing on reflective practices and critical thinking of prospective teachers during baseline period across Three Steps of Intervention

Measures	Baseline Period		
	N	Mean	SD
Test 1	22	3.00	.755
Test 2	22	2.87	.991
Test 3	22	2.50	.755
F		179.560	
Df		9	
Sig.		.534	
Partial Eta squared		.962	

The results presented in Table 2 indicate that journal writing had no statistically significant effect on reflective practices and critical thinking of prospective teachers during the baseline phase ($F = 179.560$, $p = .534$). Since the p-value is greater than the significance level of .05, the null hypothesis (H_{02}), which states that *there is no significant effect of journal writing on reflective practices and critical thinking of prospective teachers during the baseline phase*, is accepted. Thus, it is concluded that no significant change occurred in prospective teachers' critical thinking during the baseline period prior to the intervention.

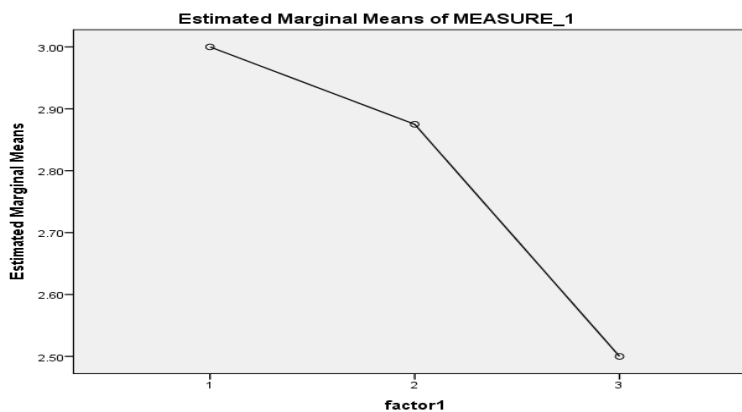


Figure 1: Estimated Marginal Means of Measure

Table 3
Mauchly's Test of Sphericity Significant Effect of journal writing on reflective practices and critical thinking of prospective teachers during treatment phase

Within Subject Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser (Epsilon ^b)
Treatment Phase	.172	9.528	7	.000	.68

Mauchly's Test of Sphericity was conducted to examine the assumption of sphericity for reflective practices and critical thinking of prospective teachers during the treatment phase of reflective journal writing. The test results were statistically significant ($W = 0.172$, $\chi^2 = 9.528$, $df = 7$, $p < .001$), indicating that the assumption of sphericity was violated. Consequently, the Greenhouse-Geisser correction ($\epsilon = .68$) was applied to adjust the

degrees of freedom for the repeated measures ANOVA. This ensured significant effect of journal writing during the treatment phase.

Table 4
The Effect significant of journal writing on reflective practices and critical thinking of prospective teachers during treatment phase across Five Steps of Intervention

Measures	Treatment Phase		
	N	Mean	SD
Test 1	22	3.62	.517
Test 2	22	4.37	.916
Test 3	22	4.62	.744
Test 4	22	4.75	1.03
Test 5	22	5.25	1.03
F		653.353	
Df		7	
Sig.		.000	
Partial Eta squared		.989	

The Table 4 show that journal writing had a statistically significant effect on prospective teachers' critical thinking, $F = 653.353$, $p \leq .001$. Since the p-value is less than .05, the null hypothesis (H_{02}), which states that *there is no significant effect of journal writing on reflective practices and critical thinking of prospective teachers during the treatment period*, is rejected. Therefore, it is concluded that journal writing significantly enhanced reflective practices and critical thinking during the treatment phase.

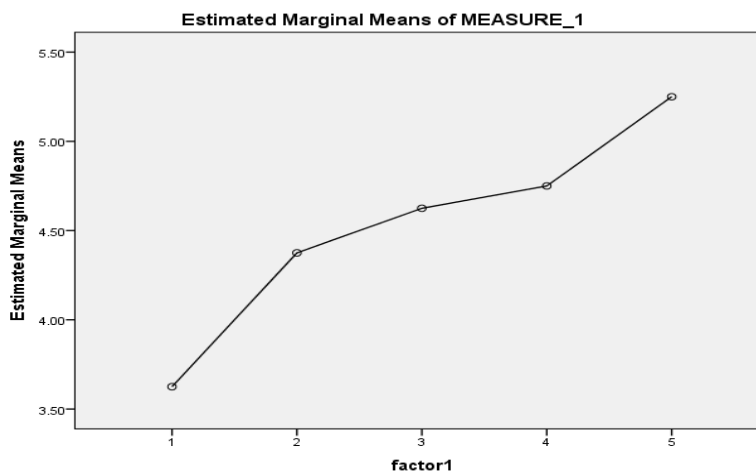


Figure 2: Estimated Marginal Means of Measure

Table 5
Mauchly's Test of Sphericity Significant Effect of journal writing on reflective practices and critical thinking of prospective teachers during Withdrawal Phase

Within Subject Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser (Epsilon ^s)
Baseline Period	.840	1.046	7	.000	.862

Mauchly's Test of Sphericity was conducted to examine the assumption of sphericity for reflective practices and critical thinking during the withdrawal phase of journal writing. The test results were significant ($W = 0.840$, $\chi^2 = 1.046$, $df = 7$, $p \leq .001$), indicating a violation of sphericity. The Greenhouse-Geisser epsilon ($\epsilon = 0.862$) falls within the acceptable range (0.75–1), ensuring that the repeated measures ANOVA remains valid for testing the effect of journal writing on reflective practices and critical thinking during the withdrawal phase.

Table 6
The Significant Effect of journal writing on reflective practices and critical thinking of prospective teachers during Withdrawal Phase across Three Steps of Intervention

Measures	Withdrawal Phase		
	N	Mean	SD
Test 1	22	5.75	.886
Test 2	22	6.25	1.83
Test 3	22	6.75	1.25
F		193.966	
Df		7	
Sig.		.000	
Partial Eta squared		.965	

The Table 6 indicate that journal writing had a statistically significant effect on prospective teachers' reflective practices and critical thinking during the withdrawal phase, $F = 193.966$, $p \leq .001$. Since the p-value is less than .05, the null hypothesis (H_{03}), which states that *there is no significant effect of journal writing on reflective practices and critical thinking during the withdrawal phase*, is rejected. Therefore, it is concluded that journal writing continued to significantly influence reflective practices and critical thinking during the withdrawal phase.

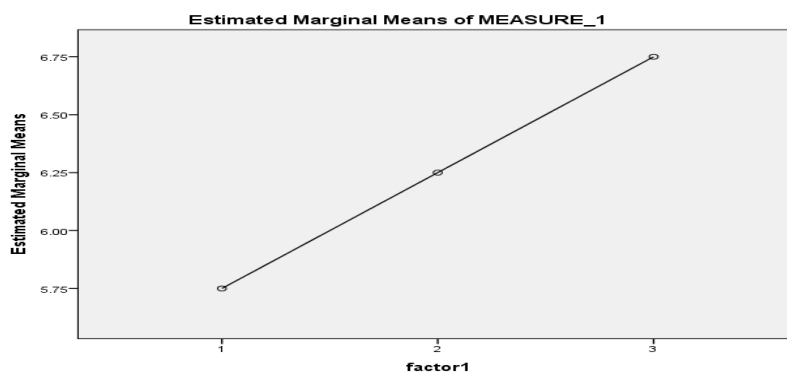


Figure 3: Estimated Marginal Means of Measure

Discussion

This study explored the effect of journal writing on the reflective practice and critical thinking of prospective teachers using an A-B-A single-subject research design. Three null hypotheses were tested across the baseline, treatment, and withdrawal phases. During the baseline phase, results presented no significant effect of journal writing on reflective practice and critical thinking, leading to the acceptance of the first null hypothesis (H_{01}), indicating that critical thinking levels remained stable without intervention. In the treatment phase, a significant effect was observed, resulting in the rejection of the second null hypothesis (H_{02}), demonstrated an improvement in critical thinking for the implementation of reflective journal writing. Similarly, the withdrawal phase showed a constant significant effect, leading to the rejection and the third null hypothesis (H_{03}), indicate that the positive effect of journal writing persevered even after the intervention was withdrawn.

The findings of this study highlight the significant role of journal writing in the professional development of early childhood preservice teachers. Consistent with prior research, journals allowed preservice teachers to gain deeper self-awareness and critically analyze their teaching practices (Sahin, Sen, & Dincer, 2019). This study highlights that journal writing plays a crucial role in the professional development of early childhood preservice teachers. The journals helped participants gain insight, critically evaluate their

practices, and develop strategies for future teaching. Content analysis showed that real classroom experiences and positive field outcomes were particularly valuable, demonstrating that journaling connects theory with practice. These findings suggest that reflective journals enhance self-awareness, critical thinking, and professional growth. Integrating structured reflective writing into teacher education programs can therefore support lifelong reflective habits and improve teaching effectiveness.

Several studies highlight the significant role of reflective writing in enhancing learning, critical thinking, and academic performance across different educational contexts. Laqaei and Mall-Amiri (2015) found that structured reflective writing improved EFL learners' writing achievement, vocabulary acquisition, and critical thinking, showing that reflection promotes deeper cognitive processing and higher-order thinking skills. Similarly, Kim (2018) demonstrated that reflective journal writing in an English writing course enhanced pre-service teachers' reflexivity by engaging with private theory, feelings, action plans, and student-teacher communication, helping them connect learning to social and cultural contexts.

Reflective journals also support metacognitive development. Ramadhanti et al. (2020) showed that self-questioning guidelines in reflective writing allowed students to monitor awareness, evaluate progress, and regulate writing processes, benefiting both habitual and non-habitual writers and fostering independence. Arifin (2021) emphasized that while some EFL graduate students struggle with reflective writing, consistent practice, exposure to diverse contexts, and structured guidance improve writing processes, critical thinking, and academic competence. Abd El-Aziz (2022) similarly reported that using a reflective writing protocol significantly enhanced EFL writing performance and critical thinking among secondary school students, highlighting its effectiveness in analyzing, evaluating, and improving written work.

Sudirman et al. (2024) further reinforced that integrating reflective practice with reflective writing in higher education promotes self-reflection, decision-making, problem-solving, and appreciation of diverse perspectives, encouraging sustained engagement with reflective writing tasks. Collectively, these studies suggest that reflective writing is a powerful pedagogical tool for developing linguistic competence, critical thinking, metacognition, and professional growth across different levels of education.

Recommendations

- Reflective journals should be regularly incorporated into teacher education programs and language to enhance students' critical thinking, writing skills, self-reflection and metacognition,
- Teachers should use stimuluses, continuous feedback and self-questioning frameworks, to support students in developing effective planning, independent learning habits and writing strategies.
- Reflective writing tasks should be linked to fieldwork, real-world scenarios, and classroom activities, enabling students to apply theoretical knowledge, assess their performance, and foster professional development.

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