Life Skill Education as A Tool for Enhancing Teacher Competency: Evidence from Professional Skill Development Among Prospective Teachers

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***Abstract*—Teacher competency is a crucial determinant of educational quality, requiring prospective teachers to acquire professional competencies beyond academic knowledge. Consistent with the vision of NEP-2020, which emphasizes competency-based education, experiential learning, and holistic development, the present study entitled "Life Skill Education as a Tool for Enhancing Teacher Competency: Evidence from Professional Skill Development among Prospective Teachers" investigated the effectiveness of Life Skill Education in enhancing professional skills among prospective teachers. The study adopted a true experimental pre-test post-test control group design involving 60 B.Ed. student teachers. A structured Life Skill Development Package based on experiential learning principles was implemented for the experimental group. Statistical analysis using Mean, Standard Deviation, t-test, and Two-Way ANOVA revealed significant improvement in professional skills, highlighting the importance of integrating Life Skill Education within teacher preparation programmers.**

***Index Terms*—Life Skill Education, Teacher Competency, Professional Skills, Prospective Teachers, Teacher Education, NEP-2020, Experiential Learning.**

I. INTRODUCTION

Education plays a crucial role in developing competent human resources, and teacher competency is considered a key factor influencing educational quality (Darling-Hammond, 2006). In the contemporary educational context, prospective teachers require professional competencies beyond academic knowledge, including communication, leadership, collaboration, and problem-solving skills (Shulman, 1987). The National Education Policy (NEP-2020) emphasizes competency-based education, experiential learning, and holistic development for preparing professionally competent teachers (Ministry of Education, 2020). Life Skill Education has emerged as an important approach for developing personal, social, and professional competencies required for effective teaching and learning (WHO, 1997). Research indicates that life skills promote adaptability, decision-making, interpersonal relationships, and professional effectiveness (UNICEF, 2012). Therefore, integrating Life Skill Education into teacher preparation programmes may significantly contribute toward enhancing teacher competency and professional readiness among prospective teachers.

II. RESEARCH GAP

Previous studies have highlighted the importance of teacher competency, life skills, and professional preparedness in teacher education. Research by WHO (1997) and UNICEF (2012) emphasized that life skill interventions contribute significantly toward improving communication, decision-making, and interpersonal competencies. Studies conducted by Nasheeda et al. (2019) & Vranda et al. (2022) reported positive effects of life skill education on learner development and professional growth. Similarly, research on teacher competency has largely focused on communication skills, academic achievement, leadership, and emotional intelligence (Darling-Hammond, 2006; Hattie, 2009). However, comparatively fewer studies have specifically investigated the effectiveness of structured Life Skill Education interventions in enhancing professional skills among prospective teachers. Further, limited

experimental evidence exists regarding interaction effects of demographic variables such as gender, academic stream, and locality. So, the present study attempts to address these identified gaps.

III. NEED AND SIGNIFICANCE OF THE STUDY

The rapidly changing educational environment demands teachers who possess professional competencies beyond academic knowledge, including communication, leadership, collaboration, decision-making, and problem-solving skills. Modern teacher education programmes emphasize preparing professionally competent teachers capable of addressing diverse classroom challenges. However, many prospective teachers experience difficulties related to professional communication, teamwork, leadership, and classroom interaction. Life Skill Education has emerged as an important approach for developing personal, social, emotional, and professional competencies necessary for effective teaching. Integrating Life Skill Education within teacher preparation programmes may significantly improve professional readiness and competency among prospective teachers. Therefore, the present study provides empirical evidence regarding the effectiveness of Life Skill Education in enhancing professional skills among prospective teachers.

IV. RATIONALE OF THE STUDY

The quality of education largely depends upon the competency and professional preparedness of teachers. In the present educational scenario, prospective teachers are expected to possess professional competencies such as communication, leadership, teamwork, problem-solving, and decision-making skills along with subject knowledge. However, many prospective teachers continue to face challenges related to professional interaction, classroom management, confidence, and practical application of skills. Traditional teacher education programmers often emphasize theoretical knowledge rather than structured professional skill development. Life Skill Education provides opportunities for experiential learning and competency development, enabling prospective teachers to manage professional responsibilities effectively. Therefore, the present study was undertaken to examine the effectiveness of Life Skill Education in enhancing professional skills among prospective teachers.

V. OBJECTIVES OF THE STUDY

1. To study the effectiveness of teaching through Life Skill Development Package in enhancing professional skills among prospective teachers.
2. To study the interaction effect between treatment and gender on professional skills among prospective teachers.
3. To study the interaction effect between treatment and academic stream on professional skills among prospective teachers.
4. To study the interaction effect between treatment and locality on professional skills among prospective teachers.

VI. HYPOTHESES

H1: There is no significant difference in pre-test mean scores of professional skills between experimental and control groups among prospective teachers.

H2: There is no significant difference in post-test mean scores of professional skills between experimental and control groups among prospective teachers.

H3: There is no significant difference between pre-test and post-test mean scores of professional skills of the control group among prospective teachers.

H4: There is no significant difference between pre-test and post-test mean scores of professional skills of the experimental group among prospective teachers.

H5: There is no significant interaction effect between treatment and gender on professional skills among prospective teachers.

H6: There is no significant interaction effect between treatment and academic stream on professional skills among prospective teachers.

H7: There is no significant interaction effect between treatment and locality on professional skills among prospective teachers.

VII. METHODOLOGY

Research Design: The present study adopted a true experimental research design using a pre-test post-test control group design to examine the effectiveness of Life Skill Education in enhancing professional skills among prospective teachers.

Study Area: The study was conducted among B.Ed. student teachers studying in selected teacher education institutions of Shivamogga district. The participants included prospective teachers belonging to different genders, academic streams, and localities.

Population and Sampling: The population of the study consisted of prospective teachers studying in B.Ed. colleges of Shivamogga district. A sample of 60 prospective teachers was selected using purposive sampling technique. The sample included 30 students in the experimental group and 30 students in the control group.

Procedures: A total sample of 60 prospective teachers was selected through purposive sampling technique and equally divided into experimental and control groups. Initially, a pre-test was conducted for both groups. The experimental group received instruction through a structured Life Skill Development Package based on experiential learning principles, whereas the control group was taught using conventional methods. After completion of the intervention, a post-test was administered to both groups.

Variables: The independent variable of the study was Life Skill Education intervention, while professional skills served as the dependent variable. Gender, academic stream, and locality were considered moderator variables.

Package and Tool: A structured Life Skill Development Package was prepared by the investigator to enhance professional skills among prospective teachers. The package included lessons and activities such as group discussions, role plays, brainstorming, and presentation activities. The tool used for data collection was a Professional Skills Question Paper prepared and validated by the investigator to measure professional skills among prospective teachers.

VIII. STATISTICAL TECHNIQUES USED FOR THE STUDY

The collected data were analyzed using appropriate statistical techniques according to the objectives and hypotheses of the study. The statistical techniques used were:

- Mean
- Standard Deviation
- t-test
- Two-Way ANOVA
- Graphical Representation

These statistical techniques were used for analyzing and interpreting the effectiveness of Life Skill Education in enhancing professional skills among prospective teachers.

IX. RESULTS AND DISCUSSION

Objective 1: To study the effectiveness of teaching through life skill development to enhance professional skills among perspective teachers.

H1: There is no significant difference in pre-test mean scores of professional skills between experimental and control group among perspective teachers.

Table 1: Comparison of Pre-Test Mean Scores of Professional Skills between Control Group and Experimental Group among Student Teachers.

Professional Skills	Groups	N	Mean	Std. Deviation	Gain Score	t - test	Sig
Pre Test	Control Group	30	16.9667	1.56433	0.5	1.282	Not Sig. at 0.05 level
	Experimental Group	30	17.4667	1.45586			

The above Table 1 presents the comparison of pre-test mean scores of professional skills between the control group and experimental group revealed that the control group obtained a mean score of 16.97 (SD = 1.56), whereas the experimental group obtained a mean score of 17.47 (SD = 1.46). The gain score difference between the groups was 0.50. The calculated t-value of 1.282 was found to be not significant at the 0.05 level of significance. Hence, there was no significant difference between the pre-test mean scores of professional skills of the control and experimental groups. Therefore, the null hypothesis was accepted,

indicating that both groups possessed nearly equal levels of professional skills before the intervention and were considered homogeneous at the initial stage of the study.

H2: There is no significant difference in post-test mean scores of professional skills between experimental and control group among perspective teachers.

Table 2: Comparison of Post-Test Mean Scores of Professional Skills between Control Group and Experimental Group among Student Teachers.

Professional Skills	Groups	N	Mean	Std. Deviation	Gain Score	t - test	Sig
Post Test	Control Group	30	17.0000	1.64002	1.4333	3.349	Sig. at 0.05 level
	Experimental Group	30	18.4333	1.67504			

The above Table 2 presents the comparison of post-test mean scores of professional skills between the control group and experimental group revealed that the control group obtained a mean score of 17.00 (SD = 1.64), whereas the experimental group obtained a mean score of 18.43 (SD = 1.68). The gain score difference between the groups was found to be 1.43. The calculated t-value of 3.349 was significant at the 0.05 level of significance. Hence, a significant difference existed between the post-test mean scores of professional skills of the control and experimental groups. Therefore, the null hypothesis was rejected, indicating that the experimental group performed better than the control group. This demonstrates that Life Skill Education significantly improved professional skills among prospective teachers after the intervention.

H3: There is no significant difference between pre-test and post-test mean scores of professional skills of control group among perspective teachers.

Table 3: Comparison of Pre-Test and Post-Test Mean Scores of Professional Skills of Control Group among Student Teachers.

Control Group	Professional Skills	Mean	N	Std. Deviation	Gain Score	t	Sig
	Pre Test	16.9667	30	1.56433	0.0333	0.571	Not Sig. at 0.05 level
	Post Test	17.0000	30	1.64002			

The above Table 3 presents the comparison of pre-test and post-test mean scores of professional skills of the control group revealed that the pre-test mean score was 16.97 (SD = 1.56), whereas the post-test mean score was 17.00 (SD = 1.64). The gain score difference between the pre-test and post-test scores was found to be 0.03. The calculated t-value of 0.571 was not significant at the 0.05 level of significance. Hence, there was no significant difference between the pre-test and post-test mean scores of professional skills of the control group. Therefore, the null hypothesis was accepted, indicating that there was no considerable improvement in the professional skills of the control group during the experimental period.

H4: There is no significant difference between pre-test and post-test mean scores of professional skills of experimental group among perspective teachers.

Table 4: Comparison of Pre-Test and Post-Test Mean Scores of Professional Skills of Experimental Group among Student Teachers.

Experimental Group	Professional Skills	Mean	N	Std. Deviation	Gain Score	t	Sig
	Pre Test	17.4667	30	1.45586	0.9666	6.227	Sig. at 0.05 level
	Post Test	18.4333	30	1.67504			

The above Table 4 presents the comparison of pre-test and post-test mean scores of professional skills of the experimental group revealed that the pre-test mean score was 17.47 (SD = 1.46), whereas the post-test mean score increased to 18.43 (SD = 1.68). The gain score difference between the pre-test and post-test scores was found to be 0.97. The calculated t-value of 6.227 was significant at the 0.05 level of significance. Hence, there was a significant difference between the pre-test and post-test mean scores of professional

skills of the experimental group. Therefore, the null hypothesis was rejected, indicating that the professional skills of the experimental group improved significantly during the intervention period. Thus, Life Skill Education contributed significantly toward enhancing professional skills among prospective teachers.

Objective 2: To study the interaction effect between treatment and gender on enhancing professional skills among perspective teachers.

H5: There is no interaction effect between treatment and gender on enhancing professional skill among perspective teachers.

Table 5: Professional Skills Post-Test Scores with Respect to Treatment and Gender among Student Teachers.

Dependent Variable: Professional Skills Post Test				
Treatment	Gender	Mean	Std. Deviation	N
Control Group	Male	17.0769	1.70595	13
	Female	16.9412	1.63824	17
	Total	17.0000	1.64002	30
Experimental Group	Male	19.5000	1.38170	12
	Female	17.7222	1.48742	18
	Total	18.4333	1.67504	30
Total	Male	18.2400	1.96384	25
	Female	17.3429	1.58936	35
	Total	17.7167	1.79540	60

The above Table 5 presents the professional skills post-test scores with respect to treatment and gender among student teachers. In the control group, male student teachers obtained a mean score of 17.0769 with a standard deviation of 1.70595, whereas female student teachers obtained a mean score of 16.9412 with a standard deviation of 1.63824. The overall mean score of the control group was 17.0000. In the experimental group, male student teachers obtained a mean score of 19.5000 with a standard deviation of 1.38170, whereas female student teachers obtained a mean score of 17.7222 with a standard deviation of 1.48742. The overall mean score of the experimental group was 18.4333. The table reveals that the experimental group secured higher mean scores than the control group in professional skills post-test scores. This indicates that the experimental group showed better performance in professional skills among student teachers.

Table 6: Two-Way ANOVA of Professional Skills Post-Test Scores with Respect to Treatment and Gender among Student Teachers.

Tests of Between-Subjects Effects					
Dependent Variable: Professional Skills Post Test					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	53.708[a]	3	17.903	7.346	.000
Intercept	18479.707	1	18479.707	7582.787	.000
Treatment (A)	37.382	1	37.382	15.339	.000
Gender (B)	13.332	1	13.332	5.471	.023
Treatment (A) x Gender (B)	9.818	1	9.818	4.028	.050
Error	136.475	56	2.437		
Total	19023.000	60			
Corrected Total	190.183	59			
a. R Squared = .282 (Adjusted R Squared = .244)					

The above Table 6 presents the results of Two-Way ANOVA of professional skills post-test scores with respect to treatment and gender revealed that the obtained F-value for treatment was 15.339 with a significance value of 0.000, which was significant at the 0.05 level. This indicates a significant main effect

of treatment on professional skills among student teachers. Similarly, the obtained F-value for gender was 5.471 with a significance value of 0.023, indicating a significant main effect of gender on professional skills. Further, the interaction effect between treatment and gender obtained an F-value of 4.028 with a significance value of 0.050, which was also significant. Therefore, it can be concluded that treatment, gender, and their interaction significantly influenced professional skills among prospective teachers.

Objective 3: To study the interaction effect between treatment and academic stream on enhancing professional skills among perspective teachers.

H6: There is no interaction effect between treatment and academic stream on enhancing professional skill among perspective teachers.

Table 7: Professional Skills Post-Test Scores with Respect to Treatment and Academic Stream among Student Teachers.

Dependent Variable: Professional Skills Post Test				
Treatment	Academic Stream	Mean	Std. Deviation	N
Control Group	Arts	17.1429	1.40642	14
	Science	16.8750	1.85742	16
	Total	17.0000	1.64002	30
Experimental Group	Arts	17.5333	1.55226	15
	Science	19.3333	1.29099	15
	Total	18.4333	1.67504	30
Total	Arts	17.3448	1.47057	29
	Science	18.0645	2.01553	31
	Total	17.7167	1.79540	60

The above Table 7 presents the professional skills post-test scores with respect to treatment and academic stream among student teachers. In the control group, arts student teachers obtained a mean score of 17.1429 with a standard deviation of 1.40642, whereas science student teachers obtained a mean score of 16.8750 with a standard deviation of 1.85742. The overall mean score of the control group was 17.0000. In the experimental group, arts student teachers obtained a mean score of 17.5333 with a standard deviation of 1.55226, whereas science student teachers obtained a mean score of 19.3333 with a standard deviation of 1.29099. The overall mean score of the experimental group was 18.4333. The table reveals that the experimental group secured higher mean scores than the control group in professional skills post-test scores. This indicates that the experimental group showed better performance in professional skills among student teachers irrespective of academic stream.

Table 8: Two-Way ANOVA of Professional Skills Post-Test Scores with Respect to Treatment and Academic Stream among Student Teachers.

Tests of Between-Subjects Effects					
Dependent Variable: Professional Skills Post Test					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	55.652[a]	3	18.551	7.722	.000
Intercept	18800.344	1	18800.344	7825.852	.000
Treatment (A)	30.366	1	30.366	12.640	.001
Academic Stream (B)	8.783	1	8.783	3.656	.061
Treatment (A) x Academic Stream (B)	15.999	1	15.999	6.660	.013
Error	134.531	56	2.402		
Total	19023.000	60			
Corrected Total	190.183	59			
a. R Squared = .293 (Adjusted R Squared = .255)					

The above Table 8 presents the results of Two-Way ANOVA of professional skills post-test scores with respect to treatment and academic stream revealed that the obtained F-value for treatment was 12.640 with a significance value of 0.001, which was significant at the 0.05 level. This indicates a significant main effect of treatment on professional skills among student teachers. The obtained F-value for academic stream was 3.656 with a significance value of 0.061, which was not significant at the 0.05 level, indicating that academic stream alone did not significantly influence professional skills. Further, the interaction effect between treatment and academic stream obtained an F-value of 6.660 with a significance value of 0.013, which was significant. Therefore, treatment and its interaction with academic stream significantly influenced professional skills among prospective teachers.

Objective 4: To study the interaction effect between treatment and locality on enhancing professional skills among perspective teachers.

H7: There is no interaction effect between treatment and locality on enhancing professional skill among perspective teachers.

Table 9: Professional Skills Post-Test Scores with Respect to Treatment and Locality among Student Teachers.

Dependent Variable: Professional Skills Post Test				
Treatment	Locality	Mean	Std. Deviation	N
Control Group	Rural	17.0000	1.54919	16
	Urban	17.0000	1.79743	14
	Total	17.0000	1.64002	30
Experimental Group	Rural	19.4000	1.29835	15
	Urban	17.4667	1.45733	15
	Total	18.4333	1.67504	30
Total	Rural	18.1613	1.86363	31
	Urban	17.2414	1.61809	29
	Total	17.7167	1.79540	60

The above Table 9 presents the professional skills post-test scores with respect to treatment and locality among student teachers. In the control group, rural student teachers obtained a mean score of 17.0000 with a standard deviation of 1.54919, whereas urban student teachers also obtained a mean score of 17.0000 with a standard deviation of 1.79743. The overall mean score of the control group was 17.0000. In the experimental group, rural student teachers obtained a mean score of 19.4000 with a standard deviation of 1.29835, whereas urban student teachers obtained a mean score of 17.4667 with a standard deviation of 1.45733. The overall mean score of the experimental group was 18.4333. The table reveals that the experimental group secured higher mean scores than the control group in professional skills post-test scores. This indicates that the experimental group showed better performance in professional skills among student teachers irrespective of locality.

Table 10: Two-Way ANOVA of Professional Skills Post-Test Scores with Respect to Treatment and Locality among Student Teachers.

Tests of Between-Subjects Effects					
Dependent Variable: Professional Skills Post Test					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	58.850[a]	3	19.617	8.364	.000
Intercept	18790.873	1	18790.873	8012.352	.000
Treatment (A)	30.748	1	30.748	13.111	.001
Locality (B)	13.985	1	13.985	5.963	.018
Treatment (A) x Locality (B)	13.985	1	13.985	5.963	.018
Error	131.333	56	2.345		
Total	19023.000	60			
Corrected Total	190.183	59			
a. R Squared = .309 (Adjusted R Squared = .272)					

The above Table 10 presents the results of Two-Way ANOVA of professional skills post-test scores with respect to treatment and locality revealed that the obtained F-value for treatment was 13.111 with a significance value of 0.001, which was significant at the 0.05 level. This indicates a significant main effect of treatment on professional skills among student teachers. Similarly, the obtained F-value for locality was 5.963 with a significance value of 0.018, indicating a significant main effect of locality on professional skills. Further, the interaction effect between treatment and locality obtained an F-value of 5.963 with a significance value of 0.018, which was also significant. Therefore, it can be concluded that treatment, locality, and their interaction significantly influenced professional skills among prospective teachers.

X. FINDINGS OF THE STUDY

- There was no significant difference between the pre-test mean scores of professional skills between experimental and control groups, indicating that both groups were homogeneous before the intervention.
- The experimental group showed significantly higher post-test professional skill scores compared to the control group, indicating the effectiveness of Life Skill Education intervention.
- No significant difference was found between pre-test and post-test professional skill scores of the control group.
- A significant improvement was observed between pre-test and post-test professional skill scores of the experimental group after the intervention.
- Treatment and gender showed significant interaction effects on professional skill development among prospective teachers.
- Academic stream alone did not show significant effects; however, the interaction between treatment and academic stream significantly influenced professional skills.
- Treatment, locality, and their interaction significantly influenced professional skill development among prospective teachers.

XI. IMPLICATIONS

- Life Skill Education can be effectively integrated into teacher education programmes to enhance professional competencies.
- Teacher education institutions should incorporate structured Life Skill Development programmes within B.Ed. curriculum.
- Experiential learning approaches may improve communication, leadership, teamwork, and professional behaviour among prospective teachers.
- The findings support competency-based teacher preparation aligned with NEP-2020 recommendations.
- Teacher educators may utilize life skill-based teaching strategies to improve classroom readiness among prospective teachers.
- Educational institutions may design professional development programmes to strengthen teacher competency and professional preparedness.
- Life Skill Education may contribute toward holistic development and preparation of professionally competent future teachers.

XII. LIMITATIONS

- The study was limited to selected teacher education institutions of Shivamoga district.
- The sample size of the study was restricted to 60 prospective teachers only.
- The study focused only on professional skills among prospective teachers.
- The study was conducted only among B.Ed. student teachers, limiting generalization to other educational levels.
- The duration of the intervention was limited and long-term effects were not examined.
- The study considered only selected demographic variables such as gender, academic stream, and locality.

XIII. CONCLUSION

The present study concluded that Life Skill Education significantly contributes toward enhancing professional skills among prospective teachers. The findings revealed that prospective teachers who received Life Skill Education intervention demonstrated better professional competency compared to those taught through conventional

methods. The study further established that demographic factors such as gender, academic stream, and locality influenced professional skill development through interaction effects. The results emphasize the importance of integrating structured Life Skill Education within teacher education programmes to promote competency-based learning, professional preparedness, and holistic development. Therefore, the study supports the inclusion of Life Skill Education as an essential component of teacher preparation programmes for developing professionally competent future educators.

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