



Attitudes Toward Self-Directed Learning Practices at University Level: Evidence from Prospective Teachers

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ARTICLE INFO	ABSTRACT
Submission: September 01, 2026 Revised: September 23, 2026 Accepted: October 10, 2026 Available Online: October 20, 2026 Keywords: Self-Directed Learning, Prospective Teachers, Teacher Education. Corresponding author: Dr. Abida Nasreen Email: nasreen.ier@pu.edu.pk	Self-directed learning is a key competency in teacher education program as it allows to take responsibility for their own learning, to track learning progress, and to assess learning outcomes. The present study examines the attitudes of prospective teachers towards self-directed learning among public and private universities in Lahore. The study also compared the attitudes of male and female prospective teachers in Public and private universities. A Quantitative cross-sectional survey study was employed. A proportionate stratified random sampling technique was used to select the sample of the study and 700 prospective teachers were selected. Data was collected through self-structured questionnaire. The questionnaire consisted on 25 items with five sub dimensions (Setting Learning Goals, Self-Motivation, Self-Management, Self-Monitoring, Self-Evaluation). The reliability of the instrument is Cronbach's $\alpha = .782$. Descriptive statistics and independent-samples t-tests were used to analyze the data. The overall level of self-directed learning of the participants was moderate. The item mean for taking responsibility for learning was the highest, while for regularly monitoring learning progress was the lowest. For the students from public university and private university, there was a statistically significant difference with students from private university having higher scores on self-directed learning. No significant difference was found between the male and female students. The findings indicate the importance of fostering reflective practices, progress monitoring, and strategic regulation of learning during teacher training programs.

Introduction

Self-directed learning (SDL) has emerged as an important competence of learners in higher education to handle their own learning. Knowles (1975) defined self-directed learning as a process by which a person takes responsibility and initiative for their learning, as well as the identification of what they need to learn and how they achieved their goals. Self-directed learning is not just an approach to independent study, but it is a set of practices used by learners to organize, monitor and evaluate their learning. In self-directed learning, it is important for learners to have meaningful learning objectives, be motivated, manage their learning activities and time, track their progress and assess their learning products (Dahal, Bhat, 2023). This help students to go beyond assigned academic work and become responsible for their own learning. Abeyrathne and Ekanayake (2021) highlighted that SDL is a learning process, not a limited activity to the individual study.

According to Dahal and Bhat (2023), the development of self-directed learning is not spontaneous; students have trouble maintaining motivation, time management, selecting learning strategies and assessing their learning progress. Murniati et al. (2023) found that there are problems in college students' motivation, time management, learning materials, and support. Self-directed learning is not just a personality trait, but also a set of practices that can be cultivated in the right learning environment

and through ongoing learning. Studies indicate that there is a relationship between self-directed learning and students' educational experiences and learning contexts, underscoring the role of the students' self-regulation and self-responsibility in learning (Doo & Zhu, 2024; Murniati et al., 2022).

Teacher education is an important context for examining self-directed learning practices because prospective teachers are not only university students but also future educators expected to encourage independence, responsibility, and lifelong learning among their own students. Makhubele (2025) highlighted the relevance of self-directed learning in teacher training and its potential to prepare future teachers for changing educational demands. For prospective teachers, the ability to establish learning goals, remain motivated, manage learning activities, monitor progress, and evaluate outcomes is important for both their academic development and their future professional practices.

Literature Review

Self-directed learning is regarded as an important skill for success in the modern higher education system as it allows learners to take charge of their learning as well as develop autonomy and lifelong learning practices. Knowles (1975) proposed that self-directed learning is an activity that involves setting learning goals, choosing learning strategies and materials, and measuring learning outcomes. This method contributes to transfer learning from dependence on teachers to independent learning. SDL is a multi-dimensional process that includes motivational, metacognitive, and self-management components of learning. Garrison (1997) states that self-management, self-monitoring and motivation are all critical factors of SDL. Abeyrathne & Ekanayake (2021) and Dahal & Bhat (2023) have found that SDL comprises designing learning activities, sustaining learners' motivation to learn, tracking learning progress, and assessing learning outcomes. Keeping SDL in mind is not just a case of self-study; it is a process in which the learner monitors and monitors himself.

Research shows that university students involved in self-directed learning through a variety of learning tasks such as assignments, presentations, group tasks, and utilization of learning materials outside of the classroom (Abeyrathne & Ekanayake, 2021). But it's not just something that you can expect to happen on its own. Students may find it difficult to stay motivated, organize their learning, track progress and reflect on their learning. There is a need to build self-directed by providing opportunities to help students gain autonomy and responsibility (Murniati et al., 2023; Thai & Phuong, 2024). The students' self-directed learning competencies associated with students' learning ability and the learning environment provided to them (Doo & Zhu, 2024; Yeşiltaş & Taş, 2025; Zhu et al., 2024).

Prospective teachers are taught not only to be knowledgeable in the subject and pedagogical content, but also to have the ability for ongoing professional development. Incorporating the practice of self-directed learning in teachers' training helps to develop a sense of responsibility in prospective teachers towards their academic program and future career development (Makhubele, 2025). Current studies have not enough examined the different aspects of SDL in the context of teacher education. The application of SDL has grown in Pakistan and quite a few research efforts have been done in specific areas or with specific groups of students. The study carried out in KPK has some significant information regarding students' readiness for self-directed learning (SDL). There are scarce data available in literature regarding the SDL of students in teacher education institutions. The literature review also indicates that there is still need for more empirical studies on SDL practices in the Pakistani higher education. In particular, more studies are needed on prospective teachers.

Although previous studies have established the importance of SDL in higher education, limited attention has been given to how prospective teachers perceive the different dimensions of SDL. There is literature available on broader higher education setting of SDL but in comparison less documentation is available to report the application of goal setting, self-motivation, self-management, self-monitoring and self-evaluation in prospective teachers in Pakistan. This study looks at these five aspects of SDL in university going students enrolled in teacher education programs. The study offers context-specific evidence that can support teacher education institutions and contribute to the development of more learner-centered approaches to teacher training programs.

This study follows these objectives:

1. Explore prospective teachers' attitudes regarding self-directed learning in public and private universities of Lahore.
2. To compare the attitudes of Prospective teachers toward self-directed learning regarding public and private universities.
3. To compare the attitudes of male and female prospective teachers toward self-directed learning.

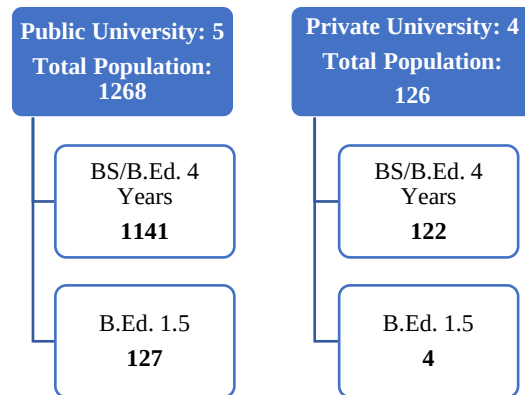
Methodology

Research Approach and Design

The study used a quantitative approach with a cross-sectional survey design. Data were collected from prospective teachers at a single point in time using a structured questionnaire.

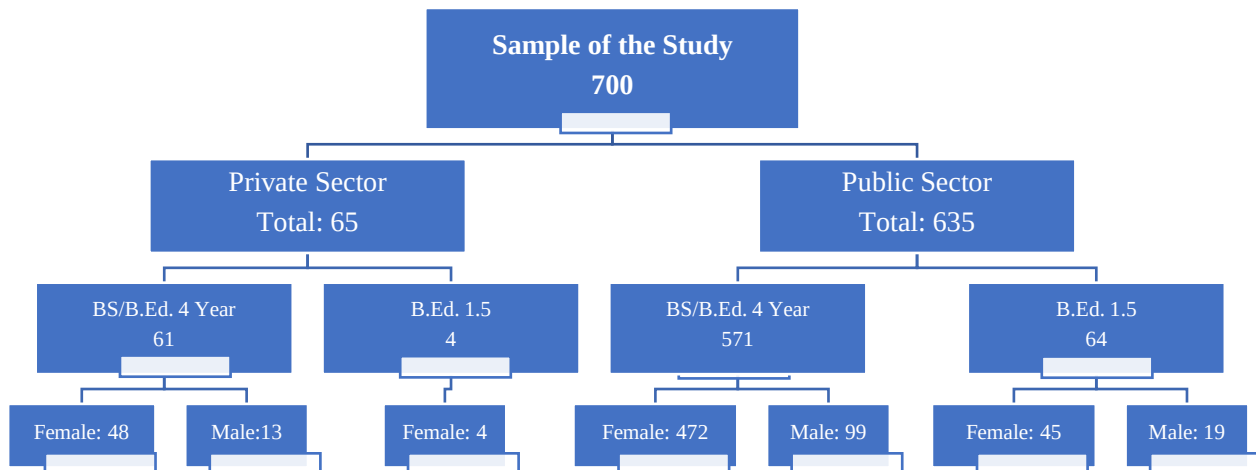
Population

The study population comprised prospective teachers enrolled in teacher education programs in HEC-approved public and private universities in Lahore. The study specifically focused on final-year students enrolled in teacher education programs, including BS/B.Ed. four-year and B.Ed. 1.5-year programs.



Sample and Sampling Techniques

The sample consisted of 700 prospective teachers. Proportionate stratified random sampling was used to obtain representation across the identified strata. The strata included university sector (public and private), teacher education program (BS/B.Ed. four-year and B.Ed. 1.5), and gender (Male and Female). Fifty percent of participants from each stratum were selected, while all participants were included from strata with fewer than 20 participants. The resulting sample comprised 635 participants from public universities and 65 from private universities.



Instrument of the Study

Data were collected using a self-structured questionnaire. The scale consisted of 25 items measuring five dimensions of self-directed learning (setting learning goals, self-motivation, self-management, self-monitoring, and self-evaluation). All items were rated on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree.

Validity and Reliability

Five educationists reviewed the content validity of the questionnaire. They provided feedback on the relevance and clarity of the items which was used to assess the items and make revisions to them. A pilot study was conducted to check the reliability and construct validity of the instrument. 100 prospective teachers were selected for a pilot study. For pilot study participants were selected from both public and private universities with equal representation of male and female students. The pilot participants were not part of the actual sample of the study.

Cronbach's alpha was used to determine the reliability of the Self-Directed Learning Scale. SDLS items had an alpha of .782, and exploratory factor analysis (EFA) was used for construct validity. The KMO measure was .698 and Bartlett's test of sphericity was statistically significant ($p < .001$). Factor loadings are between (.731 and .886) providing evidence that items were connected to the underlying construct of SDL.

Data Collection Procedure

Data were collected through both online and in-person administration. For online data collection, the questionnaire was administered through Google Forms and distributed to prospective teachers via email and WhatsApp groups. Printed copies of the questionnaire were also distributed to participants during in-person data collection.

Data Analysis

The collected data were analyzed using statistical software. Descriptive statistics were used to summarize participants' demographic characteristics and their attitudes toward self-directed learning. To address the second and third objectives, an independent-samples t-test was conducted to determine whether attitudes toward self-directed learning differed significantly between male and female prospective teachers and between public and private universities.

Ethical Considerations

Participants provided informed consent, and their anonymity and confidentiality were maintained. Participation was voluntary, and participants were informed of their right to withdraw. The data were used solely for academic purposes and stored securely.

Results

The researchers used Statistical analysis to provide descriptive statistics, such as item mean, response frequencies, and percentages. The following text summarizes and discusses the descriptive results.

Table 1: Description of Demographics of the Participants

	Category	Frequency	Percentage
Gender	Male	125	19.2%
	Female	525	80.8%
University	Public	585	90.0%
	Private	65	10.0%
Study Program	BS Education	398	61.2%
	B.Ed. 4 Years	185	28.5%
	B.Ed. 1.5	67	10.3%
Total		650	100.0%

In the present study major involvement from public institutions. As indicated in Table 4.1, most respondents were coming from public universities (90.0%) while a few respondents were coming from private universities (10.0%). Most of the respondents were female (80.8%), and males were (19.2%). The large number of participants were registered in BS Education and B.Ed. Hons.

Objective 1: To explore prospective teachers' attitudes regarding self-directed learning in public and private universities of Lahore.

Table 2: Attitudes of Prospective Teachers Toward Self-Directed Learning

Sr.no.	Statements	M	SD
Setting Learning Goals			
1	I like to make decisions for my learning.	3.35	1.124
2	I like to take responsibility for what I need to learn.	3.45	1.096
3	I am confident in setting my learning goals by myself.	3.35	1.179
4	I set my priorities before starting to learn.	3.36	1.192
5	I am able to adjust my learning activities to achieve my learning goals.	3.34	1.187
Self-Motivation			
6	I like to take charge of my own learning	3.23	1.144
7	I am motivated to learn independently outside the classroom.	3.29	1.157
8	I enjoy exploring learning materials related to my study.	3.28	1.141
9	I am not giving up my learning while facing difficulties in my studies.	3.30	1.150
10	I am confident in solving Learning difficulties.	3.33	1.157
Self-Management			
11	I manage my learning time effectively.	3.30	1.124
12	I am confident in selecting appropriate learning strategies to achieve my goals.	3.29	1.115
13	I am good at finding relevant resources for my learning.	3.22	1.190
14	I efficiently manage my learning activities with my classroom learning.	3.39	1.111
15	I complete my learning tasks on time along with other responsibilities.	3.25	1.136
Self-Monitoring			
16	I know my learning strengths.	3.33	1.168
17	I can handle my learning weaknesses.	3.34	1.151
18	I check my learning progress regularly.	3.10	1.151
19	I can change my learning strategies when I face difficulty in my learning.	3.13	1.162
20	I am confident in monitoring my own learning progress.	3.30	1.154
Self-Evaluation			
21	I like to take charge of evaluating my own learning outcomes.	3.30	1.163
22	I like to set my own criteria on which I evaluate my learning.	3.26	1.122
23	After completing one task, I compare my outcomes with my learning goals.	3.35	1.131
24	At the end, I assess whether I have achieved my learning goals or not.	3.26	1.109

25 I reflect on my learning experiences to improve my future learning. 3.15 1.189

The self-directed learning scale comprised 25 items to measure five factors: setting learning goals, self-motivation, self-management, self-monitoring, and self-evaluation. The responses were measured on a five-point Likert scale from strongly disagree to strongly agree. The items' mean scores were between 3.10-3.45, corresponding to a moderate level of agreement. The highest-rated item was "I like to take responsibility for what I need to learn." This was followed by the statements: "I efficiently manage my learning activities with my classroom learning" and "I set my priorities before starting to learn." The findings indicated that prospective teachers had comparatively higher attitudes in taking responsibility for learning and organizing learning activities. The least well-rated was "I check my learning progress regularly". Next were "I can change my learning strategies when I have difficulty in learning" and "I reflect on my learning experiences to improve my future learning". The results show that prospective teachers' self-directed learning attitudes were at a middle level. The relative strength of their responses related to responsibility, planning, and integration of learning activities, while regular monitoring, adjustments to learning strategies, and reflection seemed less clearly established.

Objective 2: To compare the attitudes of prospective teachers toward self-directed learning regarding public and private universities.

To compare the self-directed learning attitudes of prospective teachers from public and private universities an independent-samples t-test was conducted.

Table 3: Comparison between University Type (Public and Private)

Category	Mean	SD	t	df	P 2-tailed
Private	86.18	9.72	-2.234	648	.026*
Public	81.82	15.41			

The results of Table 3 show that there was a statistically significant difference in the prospective teachers' self-directed learning attitudes in relation to the university type. The mean of the participants from private universities was higher, indicating that private-university participants were more likely to have comparatively positive self-directed learning attitudes.

Objective 3: To compare the attitudes of male and female prospective teachers toward self-directed learning.

An independent-samples t-test was also conducted to compare male and female prospective teachers' attitudes toward self-directed learning.

Table 4: Comparison between male and female prospective teachers' Attitudes

Gender	Mean	SD	t	df	P 2-tailed
Female	81.91	15.52	-1.195	648	.233
Male	83.70	12.48			

The results of Table 4 showed that the attitudes of prospective teachers towards self-directed learning were not statistically different between male and female prospective teachers. There was a slightly higher mean score in the male group but this did not achieve statistical significance at the .05 level.

Findings and Discussion

The results revealed a moderate level of attitudes toward self-directed learning of prospective teachers. In comparison with the self-directed learning scale's 25 items, respondents exhibited comparatively high inclinations to take over responsibility for their learning, to prioritize their learning, to manage learning activities and to assess learning outcomes. However, the scores were not so high for regularly checking learning progress, changing learning strategies when they faced difficulty and reflecting learning experiences, which showed that developing self-directed learning was not yet consistently implemented as systematic learning activity. The results indicated that prospective teachers had lower-level self-regulated learning skills, and they need to develop higher-level metacognitive skills. Goal-setting responsibility and learning organization were stronger, whereas systematic monitoring and reflective practice could be developed. The findings indicated that teachers educated from private university reported higher level than those teachers educated from public university on self-directed learning attitude. The difference between

the mean SDLS of private university participants and public university participants was statistically significant. Results indicated that there is no statistically significant difference between male and female prospective teachers in terms of self-directed learning. The mean score for males was marginally higher than for females, but this difference was not statistically significant. The study revealed that there was no significant difference between male and female prospective teachers in terms of self-directed learning attitudes.

The results enhance the practical comprehension of self-directed learning by distinguishing between possessing an inclination for independent learning and the consistent use of metacognitive strategies to maintain it. According to Doo and Zhu (2024), learner autonomy is strengthened when students actively manage their learning processes. Navas Bonilla et al. (2025) found that modern learning environments can facilitate both independent learning and self-monitoring. Likewise, Lee and Chang (2025) pointed out that technology integration shifts passive learning to active student engagement in the educational process. The current findings indicate that future teachers are progressing in this direction, although their moderate scores suggest that the transition is still developing. They should intentionally cultivate skills in progress monitoring, strategic adjustments, reflection, and metacognitive awareness. This perspective aligns with the views of Abeyrathne and Ekanayake (2021), who highlighted the significance of supportive educational environments in enhancing self-directed learning skills among students in higher education.

These findings might indicate variations in the learning environments accessible to students within different institutional settings. Factors such as institutional support, technological integration, educational settings, and student-centered approaches could influence variations in self-directed learning attitudes (Arif and Rehman, 2025). Ahmed (2023) highlighted the importance of digital skills in enhancing self-directed learning and academic autonomy, whereas Jamil and Muschert (2024) pointed out the inequalities in digital access and institutional resources within Pakistan's higher education sector. Abeyrathne and Ekanayake (2021) stressed that supportive educational environments and learning opportunities play a role in fostering self-directed learning skills. These studies offer a reasonable contextual rationale for how institutional differences may be reflected in students' self-directed learning practices. Thai and Phuong (2024) highlighted that insufficient infrastructure and lack of academic guidance pose obstacles to self-directed learning. Arif and Rehman (2025) found that while Pakistani students acknowledge the importance of self-directed learning, they still face difficulties related to the availability of technology and institutional resources. These results imply that self-directed learning should not be considered merely an individual learner trait. The conditions within institutions can either facilitate or limit students' ability to exercise learning autonomy.

The lack of a statistically significant difference between genders is crucial as it suggests that prospective teachers of both genders exhibited similar attitudes towards self-directed learning. Aldubaib et al. (2026) support this result that gender did not have a significant impact on the self-directed learning abilities of university students. The overlapping results from previous studies and in the present research support the conclusion that gender might not be such a strong predictor for self-directed learning in higher education. Rather, it is the educational experience and the learning environment that can have a greater impact on pupils' ability to learn independently. There were significantly more women than men in the sample. Though the statistical test failed to find significant gender difference, future studies with more gender-specific studies may yield additional evidence for whether gender is linked to certain aspects of self-directed learning. There is insufficient evidence to suggest that gender would be a meaningful factor to have to consider when dealing with prospective teachers and their overall self-directed learning practices.

The mixed findings of monitoring learning progress, adjusting learning strategies, and reflecting on learning experiences suggest a discrepancy between being willing to take responsibility and the systematic regulation of learning. This means that planning, monitoring, and evaluating learning is an important aspect of learning in modern learning spaces, as elaborated by Doo and Zhu (2024) and Navas Bonilla et al. (2025). It also reflects Lee and Chang's (2025) perspective on the learner as an active learner who is not a mere receiver of information. Future teachers who are required to foster autonomous, reflective, self-monitoring, and strategic learning environments for learners must have such experiences as future teachers themselves. The results of the studies conducted by Abeyrathne and Ekanayake (2021), Ahmed (2023), Arif and Rehman (2025), Thai and Phuong (2024), Jamil and Muschert (2024) all imply that these capacities are important and can be developed through supportive institutional conditions. Based on the findings of the present study, it is recommended that individual teacher responsibility should be encouraged, along with providing structured opportunities to set goals, monitor oneself, engage in reflection, adjust strategies, and study independently to strengthen the self-directed learning of prospective teachers. Future teachers are not fully developed in self-directed learning, but rather emerging at an early stage. They have a more pronounced sense of responsibility and planning, which is useful as a starting point, and weaker abilities in monitoring, adaptation, and reflection, which form clear areas to focus on in teacher education programs. The finding of a significant university-type difference also suggests that institutional context needs to

be taken into consideration in more detail, while the lack of a gender difference implies that the development of SDL should be considered as an educational priority for male and female prospective teachers.

Results suggest that there is a need to enhance regular progress monitoring, learning strategy adjustment, and reflection on learning experiences. Teacher education programs should offer regular and planned chances for students to plan learning, track progress, assess achievement, and review their learning. There is a disparity between public and private university students, which implies that a study of the learning conditions found in each institution is necessary. Teacher education institutions, especially public universities, need to enhance the academic support facilities and create learning contexts that promote autonomy of learning and independent participation of learners. The results highlight the need to move beyond the assumption that self-directed learning is significantly different between the genders while focusing on learning practices and institutional support. The following are the recommendations for future research:

1. Other researchers should also employ a qualitative research approach to investigate self-directed learning in depth among prospective teachers.
2. It is suggested that future researchers carry out studies with equal representation of public/private universities and male and female students for better comparison.
3. Researchers are also advised to explore additional factors such as digital literacy, academic motivation, self-efficacy, and readiness for independent learning.

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