

**RESEARCH PAPER****Relationship between Students' Self-Directed Learning Readiness and Interpersonal Skills at University Level****¹Areej Jahangir, ²Dr. Mehwish Gull* and ³Salma Dahri**

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***Corresponding Author:** mehwish.gull@ed.uol.edu.pk**ABSTRACT**

Present study was aimed to investigate the relationship between students' self-directed learning readiness and interpersonal skills at university level. A correlation research design was used to investigate the relationship between the variables of the study. All undergraduate students were taken as a population from the four common departments of University of the Punjab and The University of Lahore session (2019 to 2022). Sample was drawn from the population by using multistage sampling technique. The study included a sample of 869 undergraduate students which was 30% of the total population. Two survey questionnaires were adapted as an instrument for data collection. The reliability of the questionnaires was .701 and .703 respectively. Findings of the study revealed that there was a significant moderate positive correlation existed between self-directed learning readiness and interpersonal skills among university students. The results recommended that enhanced self-directed learning (SDLR) readiness supports students in developing interpersonal skills (IS).

KEYWORDS Interpersonal Skills, Self-Directed Learning Readiness, University Level**Introduction**

The present era demands students must be lifelong learners and higher education plays a significant role in enhancing students' higher order thinking abilities, which need students to learn for themselves, as well as interpersonal skills (IS), which are social behaviors required to work with others (Cremers et al., 2014). Those who have self-learning abilities and interpersonal skills have greater opportunities to succeed in the modern world (Nordin et al., 2016). To further elaborate, in contemporary society, the rapid pace of information change necessitates individuals to engage in lifelong learning, it is crucial for individuals to take the initiative in directing themselves towards acquiring information and knowledge, enabling them to stay competitive with others (Prabjanee & Inthachot, 2013).

SDL is a procedure that may assess students' learning needs, secure their suitable learning, direct them to meaningful activities, and measure their future knowledge (Khalid et al., 2020). Self-directed learners must acquire and define learning objectives, appropriate learning materials, appropriate learning methodologies, and time management in order to evaluate students' successes (Avdal, 2013). It empowers individuals to take charge of their education by determining what and how to study, with or without the assistance of others (Merriam & Bierema, 2014). SDL is commonly linked with key educational thoughts including lifetime learning, autonomous learning, and student-centered education (Heo & Han, 2018).

Suknaisith (2014) argued that SDL was proven to improve student learning outcomes as well as student's interpersonal skills (IS). In an educational setting, interpersonal skills refer to cooperative learning behaviors and communicative skills that allow students to effectively express, engage, share, and complement others (Anthony & DiPerna, 2018). In academic literature, the term "Interpersonal Skills (IS)" is often used interchangeably with various related terms such as interpersonal relationships, social skills, social acceptance, and prosocial behavior. The study goal was to investigate the relationship between students' self-directed learning readiness and interpersonal skills at university level. In addition, the researcher will also examine the difference between the level of students' self-directed learning readiness and interpersonal skills based on their demographic variables including (gender, program, and sector).

Literature Review

Self-directed learning readiness (SDLR) as the extent to which students have developed the necessary skills and abilities to actively participate in self-directed learning (El-Gilany & Abusaad, 2013). A self-directed learner assumes responsibility for their learning journey by independently initiating, planning, regulating, and evaluating the learning process. This involves recognizing the value of seeking help and engaging in social interactions as valuable resources for learning, as emphasized by Dagal and Bayindir (2016). Furthermore, a student embodying self-directed learning cultivates attributes such as a willingness to achieve, pursue mastery goals, maintain personal motivation, and possess high self-efficacy in the learning process (Jennings-Arey, 2020). Self-directed learning (SDL) affords learners increased opportunities to reach their full individual abilities and unearth dormant talents (Edmondson et al., 2012). This approach empowers learners to explore their potential and tap into skills that may have remained dormant, fostering a more comprehensive and personalized educational experience. In light of the rapidly advancing technology of the twenty-first century, a wealth of knowledge is easily accessible to learners. According to Ponton and Carr (2016), "to stay informed, maintain competence, and lead effectively in optimal ways, today's individuals must possess a strong sense of personal agency to pick and acquire important information, demonstrating learner autonomy long after leaving formal education." Therefore, it is clear that instilling SDL in pupils has become a contemporary necessity.

Interpersonal skills are described as "a set of abilities required to interact and communicate successfully with others, both verbally and nonverbally" (Bellier et al., 2022). According to Spence (2017) "interpersonal skills are the abilities and behaviors that students use to engage with others in a good and productive way, including communication, active listening, and empathy, teamwork, and conflict resolution. Successful communication enhances individuals and strengthens relationships, while unsuccessful communication hinders human development and can lead to relationship breakdowns and individual engage in communication to discover their identity and establish connections with others (Moradi et al., 2018). Maintaining healthy interpersonal interactions with group members necessitates the effective use of interpersonal skills (Notari et al., 2013).

Various studies conducted on Self-directed learning readiness and interpersonal skills. Kim and Han (2015) investigated the relationship between SDLR and interpersonal skills in nursing students. They found self-directed learning has positive relationship with interpersonal skills. Jaleel and OM (2017) attempted to determine whether there is a significant gender difference in SDL and found no gender difference in the degree of self-directed learning. Jalaludin and Inkasan (2014), the study also identified differences between genders in interpersonal skills. Lim and Kim (2011), the study's findings

highlighted a significance difference in interpersonal skills (IS) among female and male students. Additionally, prior researches (Valiente et al., 2011; Yengimolki et al., 2015) reported findings, indicating a significant difference in social adjustment skills between female and male students, with females displaying greater social adjustment skills.

In this modern era of growing learning opportunities, self-directed learning (SDL) and interpersonal skills (IS) both are important for students. Self-directed learning empowers students to personalize their approach to learning tasks, merging skill development with the development of character, and preparing them for lifelong learning (Gibbons, 2002). On a daily basis, students employ interpersonal skills to communicate and interact with others, whether on an individual basis or within group settings. Students must be given many opportunities to cooperate with others at university in order to enhance their interpersonal skills. Students who endeavor to build good interpersonal skills are expected to thrive in both their career and personal lives (Syed et al., 2014). Hence, it is crucial to possess a comprehensive understanding of both self-directed learning readiness and interpersonal skills. The study goal to examine the relationship among students' self-directed learning readiness and interpersonal skills at university level.

Hypotheses

H₀₁: There is no significant relationship between university students' self-directed learning readiness and interpersonal skills.

H₀₂: There is no significant difference between male and female university students' self-directed learning readiness.

H₀₃: There is no significant difference between students' self-directed learning readiness on the basis of their degree program.

H₀₄: There is no significant difference between male and female university students' self-directed learning readiness on the basis of sector.

H₀₅: There is no significant difference between male and female university students' interpersonal skills.

H₀₆: There is no significant difference between students' interpersonal skills on the basis of their degree program.

H₀₇: There is no significant difference between male and female university students' interpersonal skills on the basis of sector.

Material and Methods

Present study was quantitative in nature. Correlation research design was use to investigate the relationship between university students' self-directed learning readiness and interpersonal skills.

Population and Sample

The population included all the undergraduate students in four common departments enrolled in the session 2019-2022 at both "The University of Lahore" (UOL) and "University of the Punjab" (PU). In both universities four common departments were selected. In both universities total number of enrolled students were 2920. To draw

a sample from the population multistage sampling technique was used. At first stage, in which Department of Education (Elementary), Department of English, Department of Economics and Department of Islamic Studies as clusters were taken from public and private sector universities, as there were two strata in the population (male 382 and female 487) therefore, at second stage, stratified sampling technique was used. At third stage 30% of population 869 students was selected from the common departments of both universities.

Research Instruments

The researcher used two research instruments i.e. SDLR and IS scale to collect data about student self-directed learning readiness and interpersonal skills.

Self-directed learning readiness Scale

The first instrument, the SDLR Scale, was initially developed by Cheng, Kuo, Lin, and Lee-Hsieh (2010). The original instrument comprises 20 statements categorized into four domains: learning motivation, planning and implementing, self-monitoring, and interpersonal communication. The SDLR Scale was modified for use in the Pakistani context. It has twenty-five statements in simplified language. The same 4 domains are used as the original. The reliability of this instrument was .701.

Interpersonal Skills Scale

The second instrument "Interpersonal skills" was developed by Dr. Nisar Abid and utilized in the study "Relationship between undergraduates' students' Interpersonal skills and their academic achievement at The University of Lahore." The researcher adapted the instrument. The instrument contains twenty-six statements divided into 4 domains Group work, Cooperative learning behavior, collaborative learning behavior, verbal and non-verbal behaviors. The reliability of this instrument was .703.

Data Collection

The researcher took permission from the authorities of The University of Lahore and University of the Punjab to fulfil the ethical consideration. After that, the researcher personally visited the selected department to collect data about students' self-directed learning readiness and interpersonal skills.

Data Analysis

The collected data were analyzed through both descriptive and inferential statistical techniques by using SPSS. The researcher calculated the mean and standard deviation by using descriptive statistics. Pearson r, a measure of Person Product Moment Correlation Co-efficient, was used in inferential statistics to investigate the correlation between the variables. The students' self-directed learning readiness, interpersonal skills at university level were determined in term of demographic variables including gender, sector and program using an independent samples t-test and one-way ANOVA.

Table 1
Level of SDLR and IS University Students

Variables	N	Minimum	Maximum	M	SD
Self-directed Learning Readiness	869	84.00	124.00	103.40	7.91
Interpersonal Skills	869	88.00	128.00	108.77	8.18

The overall mean scores of SDLR are 103.40 and IS 108.77, the standard deviation of SDLR is 7.91 and IS 8.18. The highest level of SDLR is 124.00 and the lowest level is 84.00 and the highest level of IS 128.00 and the lowest is 88.00. It was concluded that students' self-directed learning readiness and interpersonal skills both are high.

Table 2
Difference between Male and Female Students' Self-Directed Learning Readiness at University Level

Variables	Gender	N	M	SD	df	t-value	Sig.
Learning Motivation	Female	487	28.84	2.86	867	.355	.446
	Male	382	28.77	2.86			
Planning and Implementing	Female	487	29.33	2.96	845	-.776	.014
	Male	382	29.48	2.72			
Self-monitoring	Female	487	20.72	2.23	867	-1.074	.869
	Male	382	20.89	2.29			
Interpersonal Communication	Female	487	24.17	3.11	867	-2.354	.314
	Male	382	24.65	2.90			

Findings of the study revealed that no significant difference was found between male and female students' self-directed learning readiness (SDLR) sub-scales (learning motivation, self-monitoring and interpersonal communication), whereas a significant difference of male and female students' self-directed learning readiness sub-scale (planning and implementing) was found at university level at $p \leq .05$ level of significance.

Table 3
Difference between Public and Private Sector Students' Self-Directed Learning Readiness at University Level

Variables	Sector	N	M	SD	df	t-value	Sig.
Learning Motivation	Public	433	28.30	2.80	867	-5.295	.940
	Private	436	29.31	2.84			
Planning and Implementing	Public	433	28.75	2.84	867	-6.880	.291
	private	436	30.05	2.72			
Self-Monitoring	Public	433	20.52	2.25	867	-3.596	.491
	private	436	21.07	2.24			
Interpersonal Communication	Public	433	24.04	2.94	867	-3.337	.181
	Private	436	24.72	3.08			

The findings revealed a no significant difference was found between public and private sector students' self-directed learning readiness at university level at $p \leq .05$ level of significance.

Table 4
Difference between Students' Self-Directed Learning Readiness on the basis of their Degree Program at University Level

Variables	Sum of Squares	df	Mean Square	F	Sig.
Learning Motivation	242.016	3	80.672	10.129	.000
	6889.034	865	7.964		
	7131.049	868			
Planning and Implementing	651.141	3	217.047	29.154	.000
	6439.892	865	7.445		
	7091.033	868			
Self-Monitoring	319.878	3	106.626	22.288	.000

	4138.078	865	4.784		
	4457.956	868			
Interpersonal Communication	568.872	3	189.624	22.078	.000
	7429.213	865	8.589		
	7998.085	868			

Findings revealed that there was significant difference found between male and female university students' self-directed learning readiness at $p \leq .05$ level of significance.

Table 5
Post Hoc Test
Difference between Students' Self-Directed Learning Readiness on the basis of their Degree Program at University Level

(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	Sig.
BS Education Elementary	BS English	-1.96443	.77645	.056
	BS Islamic Studies	4.58751*	.88629	.000
	BS Economics	2.81940*	.89160	.009
BS English	BS Education Elementary	1.96443	.77645	.056
	BS Islamic Studies	6.55194*	.67485	.000
	BS Economics	4.78383*	.68181	.000
BS Islamic Studies	BS Education Elementary	-4.58751*	.88629	.000
	BS English	-6.55194*	.67485	.000
	BS Economics	-1.76811	.80467	.125
BS Economics	BS Education Elementary	-2.81940*	.89160	.009
	BS English	-4.78383*	.68181	.000
	BS Islamic Studies	1.76811	.80467	.125

A post hoc (Tukey) was applied to find out the difference between students' self-directed learning readiness within groups on the basis of their study program at university level. It was obvious from BS Education Elementary has no significant difference with BS English, but with BS Islamic Studies and BS Economics has a significant difference at $p \leq .05$ level of significance. Moreover, BS English has no significant difference with BS Education Elementary but with BS Islamic Studies and BS Economics has a significant difference at $p \leq .05$ level of significance. Further findings revealed that BS Islamic studies students has a significant difference with BS Education Elementary and BS English but with BS Economics has no significant difference with BS Islamic studies at $p \leq .05$ level of significance. Furthermore, BS Economics has a significant difference with BS Education elementary and BS English but with BS Islamic studies has no significant difference at $p \leq .05$ level of significance.

Table 6
Difference between Male and Female Students' Interpersonal Skills at University Level

Variables	Gender	N	M	SD	df	t-value	Sig.
Group Work	Female	487	29.18	2.92	867	-1.186	.236
	Male	382	29.41	2.88			
Cooperative learning	Female	487	29.51	2.87	830	-2.899	.004

Behaviors	Male	382	30.06	2.71			
Collaborative learning Behaviors	Female	487	20.88	2.35	830	-2.107	.036
	Male	382	21.21	2.27			
Verbal and Non-verbal Behaviors	Female	487	28.61	3.31	867	-.811	.418
	Male	382	28.79	3.26			

The Findings revealed a significant difference between male and female students' interpersonal skills sub-scales (cooperative learning behaviour and collaborative learning behaviour) as compared to the other sub-scales at university level at $p \leq .05$ level of significance.

Table 7
Difference in Public and Private Sector University Students' Interpersonal Skills

Variables	Sector	N	M	SD	df	t-value	Sig
Group Work	Public	433	29.37	2.91	867	.930	.936
	Private	436	29.19	2.90			
Cooperative learning Behaviors	Public	433	29.88	2.83	867	1.315	.937
	Private	436	29.63	2.80			
Collaborative Learning Behaviors	Public	433	21.14	2.43	867	1.388	.165
	Private	436	20.92	2.20			
Verbal and non-Verbal behaviors	Public	433	28.87	3.41	867	1.559	.124
	Private	436	28.62	3.15			

The findings revealed a no significant difference was found between public and private students' interpersonal skills at university level at $p \leq .05$ level of significance.

Table 8
Difference between Students' Interpersonal Skills on the basis of their Degree Program at University Level

Variables	Sum of Squares	df	Mean Square	F	Sig.
Group Work	49.207	3	16.402	1.940	.122
	7312.446	865	8.454		
	7361.652	868			
Cooperative Learning Behaviors	103.160	3	34.387	4.372	.005
	6804.093	865	7.866		
	6907.252	868			
Collaborative Learning Behaviors	194.629	3	64.876	12.472	.000
	4499.403	865	5.202		
	4694.032	868			
Verbal and Non-verbal Behaviors	345.520	3	115.173	11.006	.000
	9052.278	865	10.465		
	9397.797	868			

The Findings concluded that there was significant difference between students' interpersonal skills on the basis of their degree program at university level at $p \leq .05$ level of significance.

Table 9
Post hoc test

(I) Program	(J) Program	Mean Difference (IJ)	Std. Error	Sig.
BS Education Elementary	BS English	1.62932	.83872	.211
	BS Islamic Studies	1.08476	.95738	.669
	BS Economics	4.97713*	.96311	.000
BS English	BS Education Elementary	-1.62932	.83872	.211
	BS Islamic Studies	-.54456	.72898	.878
	BS Economics	3.34780*	.73649	.000
BS Islamic Studies	BS Education Elementary	-1.08476	.95738	.669
	BS English	.54456	.72898	.878
	BS Economics	3.89237*	.86921	.000
BS Economics	BS Education Elementary	-4.97713*	.96311	.000
	BS English	-3.34780*	.73649	.000
	BS Islamic Studies	-3.89237*	.86921	.000

A post hoc (Tukey) was applied to find out the difference between students' interpersonal skills within groups on the basis of their study program at university level. It was obvious from the findings that BS Education Elementary has no significant difference with BS English and BS Islamic studies but with BS Economics has a significant difference at $p \leq .05$ level of significance. Moreover, BS English has no significant difference with BS Education Elementary and BS Islamic Studies but with BS Economics has a significant difference at $p \leq .05$ level of significance. Findings further revealed that BS Islamic studies has no significant difference with BS Education Elementary and BS English but with BS Economics has a significant difference with at $p \leq .05$ at level of significance. Moreover, BS Economics has a significant difference with BS Education elementary, BS English and BS Islamic studies at $p \leq .05$ level of significance.

Table 10
Relationship between Students' Self-Directed Learning Readiness and their Interpersonal Skills at University Level Sub-Scales

Variables	LM	P&I	SM	IC	GW	CLB	CLB	V&NV	
Learning Motivation	Pearson Correlation	1	.366**	.279**	.254**	.446**	.138**	.119**	.080*
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.018
	N		869	869	869	869	869	869	869
Planning and Implementing	Pearson Correlation		1	.402**	.385**	.085*	.457**	.172**	.117**
	Sig. (2-tailed)			.000	.000	.013	.000	.000	.001
	N			869	869	869	869	869	869
Self-Monitoring	Pearson Correlation			1	.431**	.087*	.178**	.487**	.147**
	Sig. (2-tailed)				.000	.010	.000	.000	.000
	N				869	869	869	869	869
Interpersonal Communication	Pearson Correlation				1	.114**	.219**	.218**	.521**
	Sig. (2-tailed)					.001	.000	.000	.000
	N					869	869	869	869
Group Work	Pearson Correlation					1	.338**	.351**	.321**
	Sig. (2-tailed)						.000	.000	.000

	Sig. (2-tailed)	.000	.000	.000
	N	869	869	869
Cooperative learning behaviors	Pearson Correlation	1	.411**	.360**
	Sig. (2-tailed)		.000	.000
	N		869	869
Collaborative learning Behaviors	Pearson Correlation		1	.382**
	Sig. (2-tailed)			.000
	N			869
Verbal and Non-verbal	Pearson Correlation			1
	Sig. (2-tailed)			
	N			

The above table shows correlation coefficient (r) between students' self-directed learning readiness and interpersonal skills at university level. The (r) value (.366**) planning and implementing, (.279**) self-monitoring, (.254**) interpersonal communication, was found week positive correlation, (.138**) cooperative learning behaviors, (.119**) collaborative learning behaviors was found very week positive correlation and group work (.446**) was found moderate positive correlation, but with verbal and nonverbal (.080**) was found strong positive correlation with learning motivation at $p \leq .05$ level of significance. Moreover, The (r) value (.402**) self-monitoring, (.457**) cooperative learning behaviors, was found moderate correlation, (.385**) interpersonal communication was found week positive correlation, (.172**) collaborative learning behaviors, (.117**) verbal and nonverbal was found very week positive correlation, but with group work (.085**) was found strong positive correlation with planning and implementing at $p \leq .05$ level of significance. Furthermore, the (r) value (.431**) interpersonal communication, (.487**) collaborative learning behaviors, was found moderate positive correlation, (.178**) cooperative learning behaviors, (.147**) verbal and nonverbal was found very week positive correlation, but with group work (.087**) was found strong positive correlation with self-monitoring at $p \leq .05$ level of significance. Nevertheless, the (r) value (.114**) group work was found very week positive correlation, (.219**) cooperative learning behaviors, (.218**) collaborative learning behaviors were found week positive correlation, (.521**) verbal and nonverbal was moderate positive correlation with interpersonal communication at $p \leq .05$ level of significance. Findings further revealed that the (r) value (.338**) cooperative learning behaviors, (.351**) collaborative learning behaviors, (.321**) verbal and nonverbal was found week positive correlation with group work at $p \leq .05$ level of significance. The (r) value (.411**) collaborative learning behaviors were found moderate positive correlation, (.360**) verbal and nonverbal was found week positive correlation with cooperative learning behaviors at $p \leq .05$ level of significance. The (r) value (.382**) verbal and nonverbal was found week positive correlation with collaborative learning behaviors at $p \leq .05$ level of significance.

Table 11
Relationship in University Students' Self-Directed Learning Readiness and Interpersonal Skills

Variables	M	SD	r value	Sig.
Self-directed learning readiness	103.40	7.91	.433**	.000
Interpersonal skills	108.77	8.18		

Findings of the study concluded that there was a significant moderate positive correlation between self-directed learning readiness and interpersonal skills at $p \leq .05$ level of significance.

Discussion

Present study was aimed to investigate the relationship between students' self-directed learning readiness and interpersonal skills at university level. The findings of present study revealed a significant moderate positive correlation between self-directed learning readiness and interpersonal skills, aligning with previous research conducted by Kim and Han (2015), who also reported a significant moderate positive relationship between SDLR and interpersonal skills. The study concluded no significant difference between male and female students self-directed learning readiness at university level. Jaleel and OM (2017), found no gender difference was seen in the degree of self-directed learning. The Findings revealed that there was no significant difference between public and private sector students' self-directed learning readiness at university level. Furthermore, there was significant difference between students' self-directed learning readiness on the basis of their degree program at university level.

Moreover, findings revealed a significant difference between male and female interpersonal skills at university level. Lim and Kim (2011) who found a significant difference in interpersonal skills between female and male students, with females scoring higher. DiPrete and Jennings (2012), the researchers found a significant difference in social skills between male and female students, with female students demonstrating better social skills than male. Findings revealed that no significant difference was found between public and private students' interpersonal skills at university level. Moreover, there was significant difference between students' interpersonal skills on the basis of their degree program at university level.

Conclusion

Present study was aimed to investigate the relationship between students' self-directed learning readiness and interpersonal skills at university level. The findings concluded that there was a significant moderate positive correlation between self-directed learning readiness and interpersonal skills. The findings suggest that students who are more proactive, take responsibility for their own learning, and demonstrate characteristics linked with self-directed learning are more likely to acquire and improve their interpersonal skills. The findings further revealed that there was no significant difference between male and female students self-directed learning readiness at university level. Similarly, there was no significant difference between public and private sector students' self-directed learning readiness at university level. The results revealed that there was a significant difference between male and female Interpersonal at university level. Furthermore, there was no significant difference between public and private sector students' interpersonal skills at university level. It was concluded that there was significant difference between students self-directed learning readiness on the basis of their degree program at university level. However, there was significant difference between students' interpersonal skills on the basis of their degree program at university level.

Recommendations

Based on the findings of present study, following recommendations for further research are given below.

1. The findings of present study demonstrated a significant moderate positive correlation between self-directed learning readiness and interpersonal skills. The

findings recommended that students who are more proactive, take responsibility for their own learning, and demonstrate characteristics linked with self-directed learning are more likely to acquire and improve their interpersonal skills.

2. The study was quantitative in nature. The qualitative method is recommended by the researchers for an in-depth understanding of the phenomena.
3. The researchers suggest additional studies in this field of self-directed learning readiness and interpersonal skills to deepen our understanding of these phenomena at large sample.
4. This study was limited to undergraduate students from four common departments in both private and public sectors. The researchers recommend further research be conducted on M.Phil. and Ph.D. students' self-directed learning and interpersonal skills.

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