



Interpersonal Competence as a Dimension of Global Competence and its Relationship with Academic Motivation among Undergraduate Students

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ARTICLE INFO	ABSTRACT
Submission: August 30, 2026 Revised: September 09, 2026 Accepted: September 30, 2026 Available Online: October 09, 2026 Keywords: Global competence, interpersonal competence, skills, academic motivation, intrinsic motivation, extrinsic motivation, amotivation, undergraduate students Corresponding author: Tayyaba Muhammad Akram Email: tayyaba.ier.pu@gmail.com	Global competence is integral to higher education because students need the knowledge, skills, and attitudes to learn effectively and participate in an interconnected world. Interpersonal competence is one part of it: the ability to cooperate and communicate with people from different cultural and educational backgrounds. This study examined the relationship between interpersonal competence (Skills) and undergraduate students' academic motivation, using a quantitative correlational design. Data were collected from 1,200 undergraduate students in the Education departments of three universities in Lahore. The Skills dimension of the Global Competence Scale (Liu et al., 2020) measured interpersonal competence, and the Academic Motivation Scale (AMS) measured academic motivation. Pearson product-moment correlations were computed between skills and intrinsic motivation, extrinsic motivation, and amotivation. Skills showed statistically significant moderate positive correlations with intrinsic motivation ($r = 0.409$, $p < 0.001$) and extrinsic motivation ($r = 0.364$, $p < .001$), and a statistically significant but very weak negative correlation with amotivation ($r = -0.133$, $p < 0.001$). Students with stronger interpersonal skills therefore tended to report higher intrinsic and extrinsic motivation, while the association with amotivation was small.

Introduction

Global competence has become a growing focus in higher education because students need knowledge, skills, and attitudes to engage effectively in educational and social settings in a changing world. It has been defined in several ways, commonly as knowledge and understanding, skills, and attitudes and values (Liu et al., 2020). The Global Competence Scale (GCS) developed by Liu et al. (2020) offers a three-dimensional framework for studying these aspects. In this paper, the Skills dimension, which covers communication and interaction in cultural and academic settings, is treated as a measure of interpersonal competence and is referred to simply as

Skills. Research in higher education has also stressed the importance of global competence and intercultural collaboration in educating students and teachers for increasingly diverse contexts (Kerkhoff & Cloud, 2020; Parmigiani et al., 2022). Academic motivation is also central to students' educational experience and is commonly described as intrinsic, extrinsic, or amotivation (Vallerand et al., 1992; Guay, 2022).

Interpersonal skills matter in higher education because students communicate with teachers and peers every day, take part in collaborative learning, and work with people from diverse backgrounds. These skills also reflect global competence, particularly when students must communicate and collaborate across cultures (Liu et al., 2020; Kerkhoff & Cloud, 2020). Academic motivation, in turn, ranges from intrinsic motivation through several forms of extrinsic motivation to amotivation (Vallerand et al., 1992). Earlier studies have examined global competence and academic motivation separately, but few have looked at how the Skills dimension of global competence relates to forms of academic motivation. Little is also known about this relationship among undergraduate students in developing-country contexts, including Pakistan. Therefore, the present study investigated how interpersonal competence (skills) relates to intrinsic motivation, extrinsic motivation, and amotivation among undergraduate students.

Statement of the Problem

In higher education, interpersonal competence and academic motivation are both important for students' learning and participation. Academic motivation is closely tied to students' interest in and involvement in learning activities, while interpersonal skills relate to their ability to interact, cooperate, and communicate with others. Researchers have studied each in relation to students' learning experiences, but few studies have examined how interpersonal skills, treated here as the Skills dimension of global competence, relate to academic motivation. Evidence is especially limited for undergraduate students in Pakistan. This study therefore investigated the relationship between interpersonal competence (skills) and academic motivation (intrinsic motivation, extrinsic motivation, and amotivation) among undergraduate students.

Research Objective

The objectives of the present research are to:

1. Analyze the relationship between interpersonal competence and academic motivation among undergraduate students.
2. Examine the relationship between interpersonal competence (skills) and intrinsic motivation among undergraduate students.
3. Examine the relationship between interpersonal competence (skills) and extrinsic motivation among undergraduate students.
4. Examine the relationship between interpersonal competence (skills) and amotivation among undergraduate students.

Research Hypothesis

This research has the following hypotheses:

1. The relationship between interpersonal competence (skills) and intrinsic motivation among undergraduate students is not significant.
2. The relationship between interpersonal competence (skills) and extrinsic motivation among undergraduate students is not significant.
3. The relationship between interpersonal competence (skills) and amotivation among undergraduate students is not significant.

Theoretical Framework

The study was based on the 21st Century Competency Framework and Self-Determination Theory (SDT). The 21st Century Competency Framework highlights the knowledge, skills, and dispositions that support effective learning, communication, collaboration, and participation in today's world (Foster & Piacentini, 2023). Within this framework, the Skills dimension of global competence indicates interpersonal competence, reflecting students' capacity to communicate and collaborate with people from diverse cultural and academic backgrounds (Liu et al., 2020).

Academic motivation is conceptualized through intrinsic motivation, extrinsic motivation, and amotivation, following Self-Determination Theory (Ryan & Deci, 2020). SDT distinguishes types of motivation by the reasons people engage in an activity. By combining the 21st Century Competency Framework with SDT, this study explored how interpersonal competence (skills) relates to the three types of academic motivation among undergraduate students.

Methodology of Research

This section explains the research design, sample and sampling technique, research instruments, ethical considerations, and data analysis in the study.

Research Design

The present study explored the correlation between interpersonal competence (skills dimension) and academic motivation among undergraduate students, using a quantitative correlational design. Data were collected with a structured questionnaire. The competency items were drawn from the Global Competence Scale (GCS) by Liu et al. (2020), and the academic motivation items from the Academic Motivation Scale (AMS) by Vallerand et al. (1992). As noted above, the Skills dimension was treated as a measure of interpersonal competence, and intrinsic motivation, extrinsic motivation, and amotivation were analyzed as the three academic motivation variables.

Sample and Sampling Technique

This study included students in the Education departments of three Higher Education Commission (HEC)-recognized universities in Lahore: two public and one private. The universities were selected purposively, and students were recruited through convenience sampling from those available and willing to participate. In total, 1,250 questionnaires were distributed. The returned questionnaires were screened, and 1,200 were found valid and used in the final analysis.

Ethical Considerations

Participation in this study was voluntary. The researchers obtained permission to collect data from the participating universities. Participants were informed of the study's purpose, assured that their responses would remain confidential and be used only for research purposes, and told that they could decline or withdraw at any time. Informed consent was obtained before the questionnaires were administered.

Research Instrument

The questionnaire had three parts: (1) demographic items, (2) competency items, and (3) academic motivation items. The competency items were drawn from the Global Competence Scale (GCS) by Liu et al. (2020), which has three components: Knowledge and Understanding, Skills, and Attitudes and Values. Only the Skills dimension, treated here as an indicator of interpersonal competence, was used. It comprised 14 items covering tool use, cross-cultural communication, and international academic communication, rated on a five-point Likert scale. Academic motivation was assessed with the Academic Motivation Scale (AMS) developed by Vallerand et al. (1992), which distinguishes intrinsic motivation, extrinsic motivation, and amotivation. Eighteen items were used: four for intrinsic motivation, ten for extrinsic motivation, and four for amotivation. The wording of some items was slightly modified for clarity and understanding among undergraduate students, while the original meaning of the items was retained.

Reliability of the instrument

Internal consistency was examined using Cronbach's alpha. The Skills dimension (14 items) showed acceptable internal consistency ($\alpha = 0.767$), and all 14 items were retained for the final analysis. Among the motivation scales, the intrinsic motivation scale (four items) had a Cronbach's alpha of 0.678, which is modest and falls slightly below the conventional 0.70 benchmark, although values in this range are common for short four-item scales. The extrinsic motivation scale (10 items) showed good internal consistency ($\alpha = 0.841$), and the amotivation scale (four items) was acceptable ($\alpha = 0.781$).

Data Analysis

Descriptive and inferential statistics were used to analyze the data using IBM SPSS Statistics Version 25. Pearson product-moment correlations were computed between interpersonal competence (skills) and each of intrinsic motivation, extrinsic motivation, and

amotivation, and statistical significance was set at $p < 0.05$. Because the study was correlational, the results describe relationships between variables, not causal effects.

Analysis And Interpretation Of Data

This section presents the descriptive results for the study variables, followed by the correlation analyses used to test the three hypotheses. Item means are read against the midpoint (3.00) of the five-point response scale.

Table 1. Descriptive Statistics for the Interpersonal Competence (Skills) Items among Undergraduate Students.

Items	N	Mean	Standard deviation
I can easily read and write in one foreign language.	1200	3.87	1.13
I can easily use MS Office, PDF Reader, and other common international software.	1200	4.11	0.99
I can easily browse foreign language websites to obtain knowledge and requisite information.	1200	3.75	1.10
I can analyze and evaluate issues from the perspective of a foreign culture.	1200	3.67	1.10
I have made efforts to understand foreigners so that we can work or live together.	1200	3.60	1.03
I can be aware of cultural differences in my interactions with people from different cultures.	1200	3.82	0.99
I can quickly communicate in a common language in my interactions with people from different cultures	1200	3.62	1.10
I can adjust to language and communication outside of my own culture.	1200	3.63	1.12
I can learn, work, and live outside of my own culture.	1200	3.76	1.11
I can easily comprehend foreign literature in my field of study or profession.	1200	3.66	1.04
When faced with problems in understanding professional literature, I can take the initiative to contact and consult the author.	1200	3.37	1.00
I have made efforts to publish papers in international indexed journals or conferences (SCI, SSCI, ISTP, EI, etc.).	1200	2.82	1.20
I can actively seek foreign scholars to discuss research questions and issues at international academic conferences.	1200	3.15	1.18
I can easily discuss research questions and issues with foreign scholars at international academic conferences.	1200	3.14	1.22

Table 1 gives the item-level results for the Skills dimension. Mean scores ranged from 2.82 to 4.11, and nine of the 14 items fell between 3.60 and 3.90, above the scale midpoint. Students rated themselves highest on using common international software such as MS Office and PDF readers ($M = 4.11$, $SD = 0.99$) and lowest on efforts to publish in internationally indexed journals or conferences ($M = 2.82$, $SD = 1.20$). The two items on discussing research with foreign scholars at international conferences (items 13 and 14) also had lower means (3.15 and 3.14) and among the largest standard deviations (1.18 and 1.22). Students therefore seemed to differ more in their confidence about academic communication at the international level than in everyday communication and tool use.

Figure 1: Mean Scores of Interpersonal Competence (Skill)

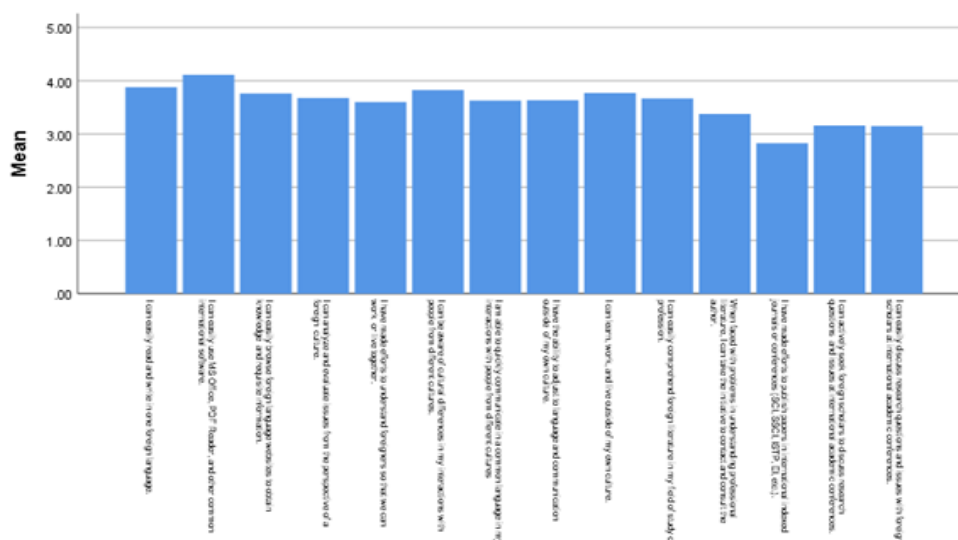


Figure 1 shows the same item means as bars. The profile is fairly even across the first ten items, with its peak at item 2. It drops from item 11 onward, where the items refer to academic activities such as contacting authors, publishing, and discussing research at international conferences. Item 12, on efforts to publish internationally, has the shortest bar.

Table 2. Descriptive Statistics for the Academic Motivation Items among Undergraduate Students

Items	N	Mean	Standard deviation
For the pleasure I experience when I discover new things never seen before.	1200	4.10	0.94
For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	1200	3.85	0.95
I find enjoyment in learning new things.	1200	3.95	0.98
I can learn about a lot of things that interest me because of my studies.	1200	3.92	1.04
I believe that education will be a key part of my preparation in the career I selected because I think that will be a key part of me getting better prepared.	1200	4.31	0.58
This will aid me to making a better choice of career orientation.	1200	3.96	0.96
I think that my education will increase my ability to be a worker.	1200	3.90	1.14
To find out that I can finish my diploma.	1200	4.16	1.47
Because when I succeed in school, I feel important.	1200	3.93	0.92
To show myself that I am an intelligent person.	1200	3.78	1.05
I would like to demonstrate to myself that I am capable of achieving good grades in my studies.	1200	3.91	1.07
Because I need at least a high school diploma to find a high-paying job later on.	1200	3.87	1.11
To obtain a more respected job later on.	1200	3.72	1.03
Because I want to lead a "decent life" someday.	1200	4.01	1.06
Well, honestly, I don't know; I'm just feeling like I'm wasting my time at school.	1200	2.80	1.44
I had multiple good reasons to attend university, but now I'm not sure if I should stay.	1200	2.65	1.22
I can't see why I go to university, and frankly, I couldn't care less.	1200	2.95	1.30
I don't know; I can't understand what I'm doing in school.	1200	3.07	1.39

Table 2 reports the item means for the Academic Motivation Scale. The four intrinsic motivation items (1 to 4) had means between 3.85 and 4.10, and the ten extrinsic motivation items (5 to 14) ranged from 3.72 to 4.31. The highest mean was for item 5, the belief that education is a key part of preparing for the chosen career ($M = 4.31$, $SD = 0.58$), which also showed the least variation. The four amotivation items (15 to 18) had the lowest means, between 2.65 and 3.07, and larger standard deviations (1.22 to 1.44). Item 8, on finishing the diploma, combined a high mean ($M = 4.16$) with a wide spread ($SD = 1.47$), so responses to it were less uniform than for most other items.

Figure 2: Mean Scores of Academic Motivation

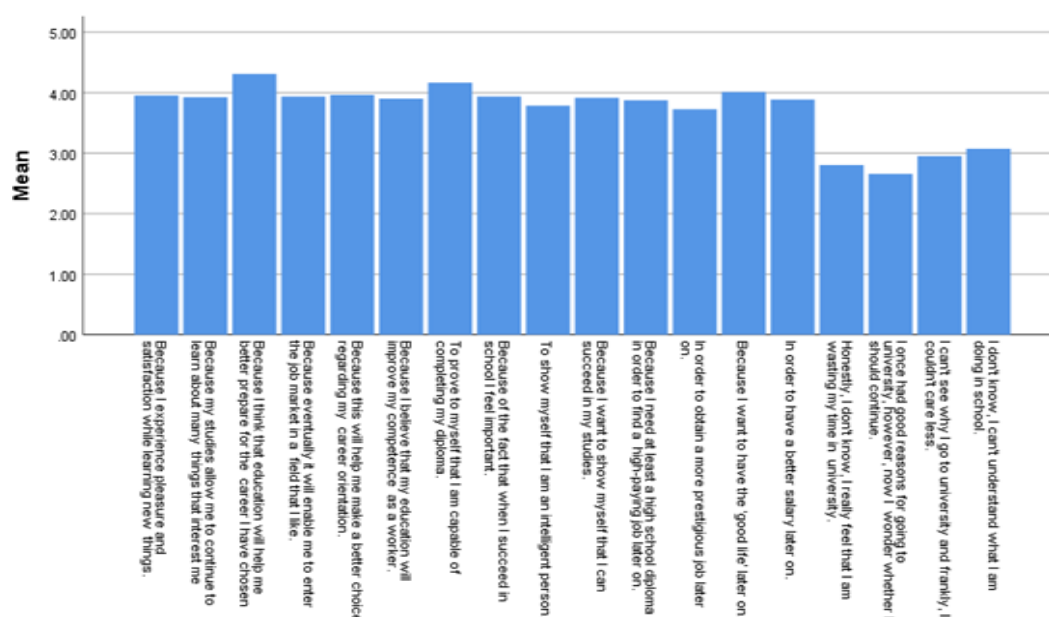


Figure 2 shows the same pattern visually. The first fourteen bars, which represent the intrinsic and extrinsic motivation items, sit at or above about 3.7, with item 5 the tallest. The last four bars, which represent the amotivation items, are clearly shorter, and item 16 has the lowest mean ($M = 2.65$).

Descriptive Statistics

Descriptive statistics (means and standard deviations) were computed for interpersonal competence (skills) and for intrinsic motivation, extrinsic motivation, and amotivation. They are reported in Table 3.

Table 3: Descriptive Statistics of Interpersonal Competence (Skills) and Academic Motivation

Variables	N	Mean	Standard Deviation
Skills	1200	3.58	0.55
Intrinsic Motivation	1200	3.96	0.70
Extrinsic motivation	1200	3.94	0.63
Amotivation	1200	2.87	1.05

Table 3 summarizes the scale scores. Students reported moderately high Skills ($M = 3.58$, $SD = 0.55$) and relatively high intrinsic motivation ($M = 3.96$, $SD = 0.70$) and extrinsic motivation ($M = 3.94$, $SD = 0.63$), with the two motivation types at similar levels. Amotivation was the lowest of the four ($M = 2.87$) and the most varied ($SD = 1.05$), suggesting that students differed more on this variable than on the others. These figures are self-reported and describe levels only; relationships between the variables are tested in the correlation analyses that follow.

Pearson correlation was used to analyze the relationship between interpersonal competence (skills) and intrinsic motivation among undergraduate students.

Research objective 1

Examine the relationship between interpersonal competence (skills) and intrinsic motivation among undergraduate students.

Research hypothesis 1

H_{01} : There is no significant relationship between interpersonal competence (skills) and intrinsic motivation among undergraduate students.

Table 4

Variables	N	R	p
Skills and Intrinsic motivation	1200	0.409	< 0.001

Table 4 presents the Pearson correlation between skills and intrinsic motivation among undergraduate students. The relationship was positive, moderate, and statistically significant ($r = 0.409$, $p < 0.001$); the null hypothesis is therefore rejected.

Pearson correlation was used to analyze the relationship between interpersonal competence (skills) and extrinsic motivation among undergraduate students in hypothesis 2.

Research objective 2

Examine the relationship between interpersonal competence (skills) and extrinsic motivation among undergraduate students.

Research hypothesis 2

H_{02} : There is no significant relationship between interpersonal competence (skills) and extrinsic motivation among undergraduate students.

Table 5

Variables	N	r	p
Skills and Extrinsic motivation	1200	.364	< .001

Table 5 presents the Pearson correlation between skills and extrinsic motivation among undergraduate students. The relationship was positive, moderate, and statistically significant ($r = .364$, $p < .001$); the null hypothesis is therefore rejected.

Furthermore, Pearson correlation was used to analyze the relationship between interpersonal competence (skills) and amotivation among undergraduate students in hypothesis 3.

Research objective 3

Examine the relationship between interpersonal competence (skills) and amotivation among undergraduate students.

Research hypothesis 3

H_{03} : There is no significant relationship between interpersonal competence (skills) and amotivation among undergraduate students is not significant.

Table 6

Variables	N	r	P
Skills and Amotivation	1200	-0.133	< 0.001

Table 6 presents the Pearson correlation between skills and amotivation among undergraduate students. The relationship was negative, very weak, and statistically significant ($r = -0.133$, $p < .001$); the null hypothesis is therefore rejected. Skills accounted for less than 2% of the variance in amotivation ($r^2 = 0.018$).

Discussion

Skills showed a moderate, statistically significant positive correlation with intrinsic motivation ($r = 0.409$, $p < 0.001$): students with higher skill levels tended to report higher intrinsic motivation. This aligns with an earlier study of university students that found a positive relationship between communication skills and motivation (Demirdağ, 2021) and with Self-Determination Theory, which links motivation to satisfaction of the needs for competence and relatedness (Ryan & Deci, 2020). Students who feel able to communicate and collaborate effectively may find learning more satisfying, although the present design cannot show that skills lead to motivation.

Skills also correlated positively and significantly with extrinsic motivation ($r = .364$, $p < .001$), so students with higher skill levels tended to report higher extrinsic motivation. This supports the view that academic motivation includes several types and that

extrinsic forms are present alongside intrinsic motivation (Ryan & Deci, 2020). It is also consistent with the positive relationship between students' communication skills and motivation reported by Demirdağ (2021). Because the extrinsic motivation scale combines several regulation types (external, introjected, and identified), future work could examine each type separately.

The relationship between skills and amotivation was statistically significant but negative ($r = -.133$, $p < .001$), meaning that students with higher skill levels tended to report slightly lower amotivation. However, the correlation is very weak. Skills explained under 2% of the variance in amotivation, and with a sample of 1,200, even a small coefficient reaches statistical significance, so this result should not be overinterpreted. Overall, skills were more strongly associated with intrinsic and extrinsic motivation than with amotivation.

Several limitations should be noted. The study was conducted in three universities in Lahore with students from Education departments, and participants were selected by non-probability methods, so the findings cannot be generalized to all undergraduate students. The Skills items of the GCS cover tool use, foreign-language use, and cross-cultural and academic communication, so treating them as a measure of interpersonal competence is an approximation; the original instrument was developed with the help of graduate students in China, and its validity for Pakistani undergraduates should be established further. All measures were self-reported; the intrinsic motivation scale had modest reliability ($\alpha = 0.678$), which may attenuate its correlations, and the correlational design does not permit causal conclusions.

Conclusion and Future Proposals

This study aimed to explore the relationship between interpersonal competence and the academic motivation of undergraduate students.

The results showed moderate positive correlations between skills and both intrinsic and extrinsic motivation, and a very small but statistically significant negative correlation between skills and amotivation. Overall, skills were more strongly related to intrinsic and extrinsic motivation than to amotivation.

Based on these results, higher education institutions may offer students more opportunities to practice communication, collaboration, and interaction skills through classroom and group activities. However, the findings show relationships, not causation. Future research could examine these relationships with students from other disciplines and universities and in other educational settings, ideally using longitudinal or experimental designs.

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