IRSTI 06.71.45 **https://doi.org/10.58805/kazutb.v.4.29-1204**

ANALYSIS OF THE EFFECT OF CULTURAL ADAPTATION ON ACADEMIC PERFORMANCE

[1]D. Satybaldiyeva, [2]B. Keneshbayev, [3]R. Tazhibayeva, [3]S. Kaltayeva, [4]A. Mutaliyeva

[1]Satbayev University, Almaty, Kazakhstan,
[2]Akhmet Yassawi University, Turkestan, Kazakhstan,
[3]International University of Tourism and Hospitality, Turkestan, Kazakhstan,
[4]Regional Innovation University, Shymkent, Kazakhstan

Correspondent-author: d.satybaldiyeva@satbayev.university

Changes and advances in areas such as communication, technology, transportation, and education have provided many opportunities for people from different cultures to live together in the same place. There are many organizational and individual strategies that are used differently to manage such intercultural interactions and differences. A new concept at the top of these strategies is cultural intelligence. This is because people with high levels of cultural intelligence can adapt quickly to the systems and social life of the country they visit, which also creates significant advantages in achieving academic success (being excellent in school, exemplary). In this context, adaptation processes and levels of achievement affect individuals to a certain extent. For this reason, this study provides an opportunity to analyze whether cultural intelligence and cultural adaptation have an impact on academic performance. Therefore, this research aims to determine the relationship between cultural intelligence and cultural adaptation and their impact on academic performance. For this reason, the sample group of the study consisted only of foreign students studying at the Khoja Ahmet Yasawi International Kazakh-Turkish University. The study surveyed a total of 275 international students, with 253 providing complete and correct responses. The results showed that participants' cultural intelligence levels were higher than their cultural adaptation levels, and that higher levels of cultural intelligence were associated with higher academic performance.

Keywords: academic performance, cultural intelligence, intercultural interactions, communication, cultural adaptation, international students.

АНАЛИЗ ВЛИЯНИЯ КУЛЬТУРНОЙ АДАПТАЦИИ НА АКАДЕМИЧЕСКУЮ УСПЕВАЕМОСТЬ

[1]Д. Сатыбалдиева, [2]Б. Кенешбаев, [3]Р. Тажибаева, [3]С. Калтаева, [4]А. Муталиева

[1]Университет Сатпаева, Алматы, Казахстан,
[2]Университет Ахмеда Ясави, Туркестан, Казахстан,
[3]Международный университет туризма и гостеприимства, Туркестан, Казахстан,
[4]Региональный инновационный университет, Шымкент, Казахстан,
e-mail: d.satybaldiyeva@satbayev.university

Изменения и достижения в таких сферах, как коммуникация, технологии, транспорт и образование, создали множество возможностей для людей из разных культур жить вместе в одном месте. Существует множество организационных и индивидуальных стратегий, которые по-разному применяются для управления такими межкультурными взаимодействиями и различиями. Одним из новых и ключевых понятий среди этих стратегий является культурный интеллект. Это объясняется тем, что люди с высоким уровнем культурного интеллекта способны быстро адаптироваться к системам и социальной жизни страны, которую они посещают, что создаёт значительные преимущества в достижении академического успеха (высокая успеваемость, примерное обучение). В этом контексте процессы адаптации и уровень достижений в определённой степени влияют на личность. Поэтому данное исследование предоставляет возможность проанализировать, оказывают ли культурный интеллект и культурная адаптация влияние на академическую успеваемость. Таким образом, цель данного исследования – определить взаимосвязь между культурным интеллектом и культурной адаптацией и их влияние на академическую успеваемость. В связи с этим

выборка исследования включала только иностранных студентов, обучающихся в Международном казахско-турецком университете имени Ходжи Ахмета Ясави. В исследовании приняли участие 275 иностранных студентов, из которых 253 предоставили полные и корректные ответы. Результаты показали, что уровни культурного интеллекта участников были выше уровней их культурной адаптации и что более высокий уровень культурного интеллекта был связан с более высокой академической успеваемостью.

Ключевые слова: академическая успеваемость, культурный интеллект, межкультурные взаимодействия, коммуникация, культурная адаптация, иностранные студенты.

МӘДЕНИ БЕЙІМДЕЛУДІҢ АКАДЕМИЯЛЫҚ ҮЛГЕРІМГЕ ӘСЕРІН ТАЛДАУ

[1]Д. Сатыбалдиева✉, [2]Б. Кенешбаев, [3]Р. Тажибаева, [3]С. Калтаева, [4]А. Муталиева

[1]Сәтбаев университеті, Алматы, Қазақстан,
[2] Ахмет Ясауи университеті, Түркістан, Қазақстан,
[3] Халықаралық туризм және меймандостық университеті, Түркістан, Қазақстан,
[4] Аймақтық инновациялық университеті, Шымкент, Қазақстан,
e-mail: d.satybaldiyeva@satbayev.university

Коммуникация, технология, көлік және білім беру сияқты салалардағы өзгерістер мен жетістіктер әртүрлі мәдениеттерден шыққан адамдардың бір жерде бірге өмір сүруіне көптеген мүмкіндіктер берді. Мұндай мәдениетаралық өзара әрекеттестіктерді және айырмашылықтарды басқару үшін түрлі ұйымдық және жеке стратегиялар қолданылады. Бұл стратегиялардың ішінде жаңа әрі маңызды ұғым - мәдени интеллект. Себебі мәдени интеллект деңгейі жоғары адамдар барған елдің жүйелері мен әлеуметтік өміріне тез бейімделе алады, бұл академиялық табысқа (үздік оқу, үлгілі студент болу) қол жеткізуде елеулі артықшылықтар береді. Осы тұрғыда бейімделу үдерістері мен жетістік деңгейі жеке тұлғаларға белгілі бір дәрежеде әсер етеді. Сондықтан бұл зерттеу мәдени интеллект пен мәдени бейімделудің академиялық үлгерімге әсерін талдауға мүмкіндік береді. Осыған байланысты зерттеудің мақсаты - мәдени интеллект пен мәдени бейімделудің арасындағы өзара байланысты және олардың академиялық үлгерімге ықпалын анықтау. Зерттеу үлгісі Ходжа Ахмет Ясауи атындағы Халықаралық қазақ-түрік университетінде оқитын шетелдік студенттермен шектелді. Зерттеуге барлығы 275 шетелдік студент қатысты, олардың 253-і толық және дұрыс жауаптар берді. Нәтижелер көрсеткендей, қатысушылардың мәдени интеллект деңгейі олардың мәдени бейімделу деңгейінен жоғары болды және мәдени интеллект деңгейі жоғары студенттердің академиялық үлгерімі де жоғары болды.

Түйін сөздер: академиялық үлгерім, мәдени интеллект, мәдениетаралық өзара әрекеттестік, коммуникация, мәдени бейімделу, шетелдік студенттер.

Introduction. The communication factor, which is the basis of human life, connects individuals, enterprises and states in today' s global world. However, this connection also creates many problems. When people from different cultures meet, work or study in the same place, and live together, some communication problems and misunderstandings arise. In order to minimize the adversarial relationship, that is, misunderstandings, between people or organizations with different cultures, the problems of adaptation and interaction that cause them must be solved.

Changes and advances in areas such as communication, technology, transportation and education provide many opportunities for people from different cultures to live together. There are many organizational and individual strategies that are used differently in intercultural interaction and managing differences. At the top of these strategies is a new concept - cultural intelligence.

Cultural intelligence is the ability to perceive, understand, interpret, and assimilate the characteristics of different cultures in order to

manage cultural differences in a multicultural environment with many cultures. People with a high level of cultural intelligence can quickly adapt to the systems and social life of the country they visit, which also creates significant advantages in achieving academic success (being excellent in school, exemplary). Therefore, this research study examines the impact of cultural intelligence and cultural adaptation on academic performance [1].

In this regard, the origin of the concept of culture comes from the Latin word ”cultura” and is used in the sense of sowing, harvesting. The first definition of the concept of culture was given in 1871 by the British anthropologist Taylor. According to him, ”culture is a complex whole consisting of knowledge, belief, art, morals, customs, and any other capabilities and habits acquired by people as members of society” [2]. Although there is no single opinion regarding the concept of intelligence, different definitions have been made in each century. Wesher defines intelligence as “the general ability of an individual to think logically and to influence his environment.” Storddad defines intelligence as “the ability of an individual to exhibit mental behavior that is difficult, complex, abstract, economically relevant, socially valuable, and has special qualities and to resist excitement” [3].

From the past to the present, cultural values have had a great influence on the concept of intelligence, and the factors that constitute intelligence vary from culture to culture. Considering the cultural structure of Western societies, the use of intelligence is seen as a sound decision. In the cultural structure of many African societies, intelligence varies according to needs and desires. Attitudes and behaviors that are defined as intelligent at the cultural level of Western societies can be judged as useless and absurd in different cultures [4].

Research on intelligence speaks of three different intellectual directions that appear in the emergence of the concept of intelligence. These are social intelligence, emotional intelligence, and cognitive intelligence. Cultural intelligence, on the other hand, is seen as different from other areas of intelligence, accepts the differences that globalization brings to life, and manifests itself in diverse, multicultural cultural environments and societies [5].

The presence of different people and societies, organizations in intercultural environments for the purpose of education, travel, work or improvement of living conditions leads to the coexistence of cultural diversity. In this context, adaptation processes and levels of achievement affect individuals to a certain extent. For this reason, this study allows us to analyze whether cultural intelligence and cultural adaptation have an impact on academic performance. It also contributes to achieving Sustainable Development Goal 4 (SDG 4) by examining the impact of cultural intelligence and cultural adaptation on academic performance. This goal also includes promoting education for sustainable development. Therefore, this research aims to determine the relationship between cultural intelligence and cultural adaptation and their impact on academic performance. It should be noted that in similar studies, methods such as the Analytic Hierarchy Process (AHP), fuzzy set theory, key indicator selection methods, and other modern approaches to multicriteria evaluation are widely used.

However, in this study, a questionnaire survey method was applied, which made it possible to obtain direct data from respondents The study examines in detail the impact of sub-dimensions of cultural intelligence and cultural adaptation on academic performance [6-8]. The data collection process during the research lasted 3 months. The sample group of the study consisted of foreign students studying at the Khoja Ahmet Yasawi International Kazakh-Turkish University. As part of the study, a total of 275 foreign students were distributed questionnaires, and 253 people provided complete and correct responses, which were used in the full research work. One of the reasons why only the Khoja Ahmet Yasawi International Kazakh-Turkish University was selected in the study is that this university addresses the need to achieve SDG 4 (ensure inclusive and equitable quality education and promote lifelong learning opportunities) by providing access to university-

level education, vocational training, and a variety of necessary skills, and they pay special attention to equity issues.

Literature review. People and societies interact with many different cultures around the world, and the way to succeed in this interaction is through cultural intelligence.

This section of the research paper reviews the literature on how to acquire and develop cultural intelligence. Triandis argued that in order for individuals to have cultural intelligence, they must have certain qualities. The first is that they must postpone thinking about others until they have the right information. A lot of information is needed to make good decisions. Since culture affects behavior and understanding, communication between cultures and the behavior of people differ in this regard. Cultures differ from each other in their characteristics. In this regard, two types of culture can be distinguished. One is collective culture, and the other is individual culture. Triandis argued that an individual increases his cultural intelligence by analyzing the positive and negative features of the culture in which he lives and of different cultures [9].

Earley et al. [10] argued that cultural intelligence is a concept that requires training, education, and training in terms of intelligence, emotion, and behavior. Intellectual education is based on categorizing individuals using various methods and giving them different names.

How we classify people around us varies from culture to culture. Behavioral training allows people to freely engage in their desired behaviors and actions, minimizing behaviors that are not generally accepted by the public. Earley and Mosakowski [11] stated that people who are able to develop their cultural intelligence are psychologically healthy and professionally successful. Earley and Mosakowski [12] also stated that cultural intelligence can be developed through a multi-stage approach (Figure 1). The first of these approaches is to analyze the strengths and weaknesses of individuals in order to determine how they can develop cultural intelligence. If we look at the relevant literature on this topic, we can see that various tools have been developed for the results of this analysis. In this context, questions have been developed that measure cultural intelligence differently, and these questions have revealed the strengths and weaknesses of individuals and formed the basis for the support and training that the individual should receive in view of this outcome. In the second stage, training, education, and training methods are selected to improve the weaknesses of the individual. In the third stage, education and training aimed at a specific individual or group begins. In the fourth stage, individuals or groups must organize their resources and opportunities around themselves to improve their weaknesses. In the fifth stage, the individual enters the cultural environment in which he must, must be. In this stage, he puts into practice what he has learned, demonstrating his strengths in terms of cultural intelligence and continuing his weaknesses. The final sixth stage is the stage of evaluation of the new skills acquired or mastered by the individual. This stage is carried out through personal feedback from the environment. After these steps, a decision is made whether the individual needs additional training or not.

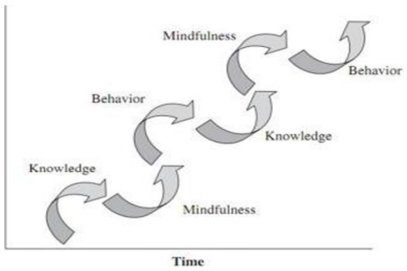


Fig.1 - The process of developing cultural intelligence

Source: Compiled by the authors based on references [11,12]

Thomas and Inkson [13] stated that experience is more effective than learning or education in developing cultural intelligence. Thomas and Inkson [13] also stated that there are many factors that contribute to the development of cultural intelligence. They stated [14, 15, 16]: The first of these factors is that individuals have little exposure to or interest in other cultures because they are accustomed to using their own culture. The second

factor is that one must be open to this situation in order to recognize and accept different cultures. The third stage, they try to accept the behaviors and rules of other cultures. Here, a detailed understanding of cultural differences begins to develop. The fourth stage, the rules of different cultures are adapted to alternative behavior. In the final fifth stage, these people are able to adapt to changes and differences more easily than other people in a multicultural environment.

According to Plum, cultural intelligence also encompasses the broader concept of culture. Culture is relevant to every organization, society, and individual. Therefore, the development of cultural intelligence is also important for the following situations [17]:

- when there is a structural change or merger in an organization, it is necessary to

achieve harmony between different cultures and create a new organizational culture;

- structures with different departments should turn working conditions and methods into advantages and solve problems;

- organizations with cross-cultural diversity should respect differences and integrate these differences into the business environment;

- in a multicultural environment, organizations with different structures (age, gender, education, race, etc.) should create effective cooperation and awareness in their workplaces.

From this perspective, cultural intelligence is the ability to absorb, perceive, interpret and accept different cultural characteristics in order to manage cultural differences in an environment where many different cultures live.

Cultural intelligence is a new phenomenon that has emerged with globalization. Therefore, we can say that cultural intelligence is a key ability that managers and employees in the 21st century must have. Cultural intelligence allows both managers and employees to adapt to different cultures, make informed and correct decisions, and establish good relationships.

In this regard, if we dwell in detail on the research conducted in the field of cultural intelligence, their brief descriptions are presented in Table 1.

Table 1 - Research conducted in the field of cultural intelligence

1	**Purpose of the research**	Identify the relationship between the five major personality factors and dimensions of cultural intelligence
	The result of the research	Openness to experience was found to be an important personality factor, related to an individual's ability to interact effectively with people from different cultures. There was a positive relationship between mindfulness and high metacognitive cultural intelligence, and high adaptability was also found to be associated with behavioral cultural intelligence
	Characteristics of participants	338 management undergraduate students participated
2	**Purpose of the research**	Identifying the role of cultural intelligence in intercultural leadership activities and practices
	The result of the research	It has been found that a leader's cultural intelligence is important in managing employees who have grown up in different cultural environments, and that the development of cultural intelligence increases in direct proportion to the time they spend living in another culture
	Characteristics of participants	32 Western European managers (including 26 Australian managers) and 19 Chinese managers participated

3	**Purpose of the research**	Determining the relationship between employees' academic performance and cultural intelligence
	The result of the research	A positive relationship was found between employees' academic performance and the motivational dimension of cultural intelligence. However, a negative relationship was found between the behavioral dimension of cultural intelligence
	Characteristics of participants	Research conducted on declining industrial sectors
4	**Purpose of the research**	Identifying the relationship between cultural intelligence and organizational commitment (dependence)
	The result of the research	A positive relationship was found between organizational commitment (dependence) and informational, motivational, and behavioral dimensions of cultural intelligence. It was found that the greater the knowledge about culture and the nature of cultural differences, the higher the commitment (dependence) to the organization
	Characteristics of participants	100 university employees in Iran participated
Note: Compiled by the authors		

Thus, a review of some relevant literature published on the topic of the study was conducted, and although it is known that many studies have been conducted on culture, organizations, organizational culture and organizational structure, it is clearly seen that there has been no adequate research on cultural intelligence and cultural adaptation and their impact on academic performance during the screening [18].

In this regard, although it is known that scientific research is being conducted on the concepts and concepts of cultural intelligence and cultural adaptation in many countries, this does not apply to Kazakhstan. There are very few local scientific studies on the concepts of cultural intelligence and cultural adaptation, they only learn and try to study it from foreign sources. This is because the concepts and concepts of cultural intelligence and cultural adaptation are very new and are just beginning to be learned.

Materials and methods. The presence of people and societies in multicultural or intercultural environments for learning or teaching, traveling, working, and other living conditions leads to the coexistence of cultural diversity. In this context, adaptation, assimilation processes, and achievement levels affect individuals to different degrees. For this reason, this research study provides an opportunity to analyze the impact of cultural intelligence and cultural adaptation on academic performance based on research findings.

This research study is an important resource or scientific literature, as it expands the concept of cultural intelligence, which is a new concept in the literature, and broadly reveals the impact of the concepts of academic performance and cultural adaptation on cultural intelligence.

The main hypotheses of the research work were also developed in accordance with the research objectives, that is, cultural intelligence as an independent variable and cultural adaptation as a dependent variable were formed between academic performance (GPA-grade point average). Therefore, there are two main hypotheses in this research work. They are:

H_1: Cultural intelligence has a significant and significant effect on academic performance;

H_2: Cultural adaptation has a significant and significant effect on academic performance.

In this regard, there are some limitations of this research work. The first limitation of the study arises from the selection of samples. The study participants (sample) were selected from the Khoja Ahmet Yasawi International Kazakh-Turkish University using the convenience (easy) sampling method. Although the convenience (easy) sampling method is a frequently used sampling method, its reliability is lower than other samples. Therefore, it can be considered a limitation of this study.

Another limitation of the study is the sample size. As part of the study, a total of 275 foreign students were surveyed, and 253 of them completed and returned complete and correct responses. Although this number was sufficient for statistical analysis, more reliable results could have been achieved with a larger sample size. Another limitation of the study is time.

The data collection process during the study lasted 3 months. Extending this period would have undoubtedly increased the sample size, but due to time constraints, this expansion was not possible.

The final limitation of the study stems from the location of the sample. The sample consisted of foreign students studying only in the cities of Turkestan and Kentau. Since a significant proportion of foreign students are students from different countries, we can say that the reliability of the results is high.

As mentioned above, the main population and sample of the study consisted of the foreign students studying at the departments of the Khoja Ahmet Yasawi International Kazakh-Turkish University in Turkestan and Kentau (preparatory, bachelor' s, master' s, doctoral studies). When selecting the research sample, a convenient (easy) sampling method was used.

The survey method was used in the study. The survey used in the study consists of three parts. The first part contains 5 questions to determine the demographic characteristics of the study participants. The second part of the survey contains a 20-question ”Cultural Intelligence” scale aimed at determining the cultural intelligence of the participants. The last part of the study contains a 14-item ”Cultural Adaptation” scale used to measure the cultural adaptation of the participants.

The Cultural Intelligence Scale included in the questionnaire was developed by Ang and colleagues [5]. This scale consists of 20 items (questions) (KZ1...-...KZ20). The scale consists of four dimensions: “Higher Cognitive (Metacognitive)”, “Cognitive (Cognitive)”, “Motivational” and “Behavioral”, which allow individuals to effectively conduct their activities in different cultural environments or multicultural environments and be successful in that environment. The scale aims to objectively reveal individuals' perceptions of culture. The scale used a 5-point Likert method, coded as “strongly disagree”, “disagree”, “unsure”, “agree” and “strongly agree”. Items 1, 2, 3 and 4 of the scale indicate “Higher Cognitive (Metacognitive) Intelligence”; Items 5, 6, 7, 8, 9, and 10 measure “Cognitive Intelligence”; items 11, 12, 13, 14, and 15 measure “Motivational Intelligence”; and items 16, 17, 18, 19, and 20 measure “Behavioral Intelligence.” Levels of cultural intelligence were determined according to the total score obtained on the scale. An individual with a high score was considered to have high cultural intelligence. A similar interpretation is valid for the smaller dimensions of the scale.

The Cultural Adaptation Scale included in the questionnaire was developed by Black [19] and Black & Stephen [20]. This scale consists of 14 items (questions) (KA1...-...KA14). The scale consists of three dimensions: ”Physical Adaptation”, ”Social Adaptation”, and ”Work Environment Adaptation”. The scale uses a 5-point Likert scale coded as ”completely incompatible”, ”somewhat compatible”, ”compatible”, and ”completely compatible”. Items 1, 2, 3, 5, 6, and 7 of the scale measure ”Physical Adaptation”; items 8, 9, 10, and 11 measure ”Social Adaptation”; and items 11, 12, 13, and 14 measure ”Work Environment Adaptation”.

The data obtained from the survey were analyzed using SPSS 23 and AMOS 23 data analysis software. In addition, “Descriptive Statistics”, “Confirmatory Factor Analysis” and “Structural Equation Modeling” were used in the analysis of the

data and data.

As mentioned above, the main population and sample of the study which foreign students studying at the International Kazakh-Turkish University named after Khoja Akhmet Yassawi (preparatory, undergraduate, graduate, doctoral). The demographic characteristics and characteristics of the sample are summarized in Table 2.

Table 2 - Demographic features and characteristics of participants

		Frequency	Share (%)	Eliglibe Share (%)	Total Share (%)
Gender	**Female**	145	57,3	57,3	57,3
	Male	108	42,7	42,7	100,0
	All	253	100,0	100,0	
Age	**18-24**	118	46,6	46,6	46,6
	25-31	94	37,2	37,2	83,8
	32-38	31	12,3	12,3	96,0
	39-45	4	1,6	1,6	97,6
	46 ≤	6	2,4	2,4	100,0
	All	253	100,0	100,0	
Country	**Turkey**	33	13,0	13,0	13,0
	Russia, China, Mongolia	100	39,5	39,5	52,6
	Central Asia	106	41,9	41,9	94,5
	Other	14	5,5	5,5	100,0
	All	253	100,0	100,0	
GPA	**1.50 - 1.99**	2	0,8	0,8	0,8
	2.00 - 2.49	16	6,3	6,3	7,1
	2.50 - 2.99	33	13,0	13,0	20,2
	3.00 - 3.49	107	42,3	42,3	62,5
	3.50 - 4.00	95	37,5	37,5	100,0
	All	253	100,0	100,0	
Note: Compiled by the author					

As shown in Table 2, of the foreign students who participated in the study, 145 (57.3%) were female and 108 (42.7%) were male. The majority of participants (46.6%) were under 24 years of age.41.9% of participants came from Central Asian countries, 39.5% from Russia, China, Mongolia, 13.0% from Turkey, and the remaining 5.5% were students from other countries. The study assessed students' academic performance using the average score. The analysis revealed that a significant proportion of foreign students (approximately 80%) who participated in the study had an average GPA of at least 3. In other words, the study was conducted with students who were good and very good students, that is, participants.

As mentioned in the previous section, the

"Cultural Intelligence Scale" developed by Ang and colleagues [21] was introduced and used in the survey. In the following part of the study, basic statistical information on cultural intelligence, cultural adaptation and their subscales: arithmetic means and standard deviations were calculated, and the results obtained are summarized in Table 3.

Table 3 - Basic statistical information regarding cultural intelligence, cultural adaptation and their subscales

	N	Arithmetic mean	Standard deviation
Cultural Intelligence	253	3,8731	0,49210
Cultural Adaptation	253	3,4593	0,57254
Metacognitive Intelligence	253	4,2069	0,69566
Cognitive Intelligence	253	3,3887	0,68880
Motivational Intelligence	253	4,0731	0,66225
Behavioral Intelligence	253	3,8237	0,71052
Physical Adaptation	253	3,4608	0,61407
Social Adaptation	253	3,4585	0,71044
Work Environment Adaptation	253	3,4585	0,74752
Note: Compiled by the author			

When examining Table 3, it was found that the participants had above average cultural intelligence and cultural adaptation. In general, it was also observed that the participants' cultural intelligence levels (3.87) were higher than their cultural adaptation levels. It was also found that the participants had high levels of metacognitive intelligence, while their cognitive intelligence levels were relatively low. It was also observed that all sub-dimensions of cultural adaptation were at the same level.

In the next part of the study, the relationship between cultural intelligence, which was used as one of the main variables in the study, and metacognitive, cognitive, motivational, and behavioral intelligences, which are sub-dimensions of cultural intelligence, and academic performance, was examined through correlation analysis. The results obtained are presented in Table 4 below.

As can be seen from Table 4, positive and significant relationships were found between the cultural intelligence of the foreign students participating in the study and their academic performance (grade point average) in all subscales except the subscale called cognitive intelligence ($p<0.05$). In other words, the increase in the cultural intelligence of the foreign students participating in the study also increases their grade point average (grade point average).

Another key variable used in the study was cultural adaptation and the relationship between the subscales of cultural adaptation, physical adaptation, social adaptation, and work environment adaptation, and academic performance, which were also examined through correlation analysis, and the results are summarized in Table 5 below.

As can be seen from Table 5, there were positive and significant relationships ($p<0.05$) between the cultural adaptation of the foreign students participating in the study and all subscales of cultural adaptation and their academic performance (average grades). In other words, the increase in cultural adaptation of the foreign students participating in the study also increases their average grades (progress).

In this section of the study, the relationships between cultural intelligence and its subscales and cultural adaptation and its subscales were analyzed. The results obtained as a result of the correlation analysis are summarized in Table 6.

Table 4 - Results of correlation analysis on cultural intelligence, its subscales, and academic performance

№	**Name**	**1**	**2**	**3**	**4**	**5**	**6**
1	Average score	1					
2	Cultural intelligence	,216**	1				
3	Metacognitive intelligence	,178**	,700**	1			
4	Cognitive intelligence	,035	,684**	,310**	1		
5	Motivational intelligence	,185**	,752**	,451**	,278**	1	
6	Behavioral intelligence	,217**	,721**	,241**	,362**	,441**	1
Note: Compiled by the author							

*p<0,05 **p<0,01

Table 5 - Results of correlation analysis regarding cultural adaptation, its subscales, and academic performance

№	**Name**	**1**	**2**	**3**	**4**	**5**	**6**
1	Average score	1					
2	Cultural intelligence	,216**	1				
3	Metacognitive intelligence	,178**	,700**	1			
4	Cognitive intelligence	,035	,684**	,310**	1		
5	Motivational intelligence	,185**	,752**	,451**	,278**	1	
6	Behavioral intelligence	,217**	,721**	,241**	,362**	,441**	1
Note: Compiled by the author							

*p<0,05 **p<0,01

Table 6 - Correlation analysis between cultural intelligence and its subscales and cultural adaptation and its subscales

№	**Name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Cultural Intelligence	1								
2	Cultural Adaptation	,339**	1							
3	Metacognitive Intelligence	,700**	,173**	1						
4	Cognitive Intelligence	,684**	,311**	,310**	1					
5	Motivational Intelligence	,752**	,219**	,451**	,278**	1				

6	Behavioral Intelligence	,721**	,266**	,241**	,362**	,441**	1			
7	Physical Adaptation	,298**	,816**	,173**	,238**	,174**	,262*	1		
8	Social Adaptation	,271**	,817**	,111*	,260**	,180**	,222*	,507*	1	
9	Work Environment Adaptation	,278**	,851**	,149*	,272**	,188**	,185*	,572*	,510*	1
Note: Compiled by the author										

*p<0,05 **p<0,01

As can be seen from Table 6, positive and significant relationships were also found between cultural intelligence and all its subscales and cultural adaptation and all its subscales (p<0.05).

The information obtained after the structural model analysis performed with the AMOS program to test the main hypotheses of the study is shown in Table 7.

Table 7 - Relationships and coefficients in a structural model

			Prediction coefficient	**Standard error**	**C.R.**	**P**
Average grade	<—	Cultural Intelligence	,306	,119	2,561	,010
Average grade	<—	Cultural Adaptation	,233	,103	2,266	,023
Note: Compiled by the author						

As shown in Table 7, the analysis revealed a significant relationship (effect) between all variables at the p<0.05 significance level. The analysis revealed a positive and significant relationship (ß=0.306) between cultural intelligence and academic performance (average grade) and a positive and significant relationship (ß=0.233) between cultural adaptation and academic performance (average grade). In other words, the main hypotheses of the study, H_1 and H_2, were accepted.

Results and discussion. In general, this research paper examined in detail the concepts of cultural intelligence and cultural adaptation, which can be used as a new strategy for managing differences in intercultural communication. In other words, this work was conducted to identify and explain the relationship between cultural intelligence, which is a new concept in the field of intercultural communication and adaptation, and cultural adaptation on academic performance. The results of this study showed how important the concepts of cultural intelligence and cultural adaptation are. Also, as a result of the study, we can say that in order to successfully establish and successfully continue intercultural communication, it is necessary to develop and effectively use the phenomenon of cultural intelligence. People with high cultural intelligence can easily solve problems that may arise from different cultures and successfully conduct the processes arising from such interactions. In the future, people who will succeed in different cultures will be those who increase their levels of cultural intelligence.

For this reason, people should effectively master and use the phenomenon of cultural intelligence. Therefore, this research paper is an important resource or scientific literature, because it expands the concept of cultural intelligence, which is a new concept in the literature, and widely reveals the impact of the concepts of academic performance and cultural adaptation on cultural intelligence.

If we focus on the results of the study individually, it was found that the cultural intelligence and cultural adaptation of the foreign

students who participated in the study were above average. In general, it was also observed that the cultural intelligence levels of the participants were higher than their cultural adaptation levels. In addition, it was found that the participants had high levels of metacognitive intelligence, while their cognitive intelligence levels were relatively low. It was also observed that all subscales of cultural adaptation were at the same level.

However, positive and significant relationships were found between the cultural intelligence of the foreign students who participated in the study and their academic performance (average grades) in all subscales except the subscale called cognitive intelligence ($p<0.05$). In other words, an increase in the cultural intelligence of the foreign students who participated in the study also increases their average grades (progress). However, a positive and significant relationship was found between the cultural adaptation of the foreign students participating in the study and all subscales of cultural adaptation and their academic performance (grade point average) ($p<0.05$). In other words, the increase in the cultural adaptation of the foreign students participating in the study also increases their grade point average (progress).

The overall analysis revealed a positive and significant relationship (ß=0.306) between cultural intelligence and academic performance (average grade) and a positive and significant relationship (ß=0.233) between cultural adaptation and academic performance (average grade). In other words, the main hypotheses of the study, H1 and H2, were accepted.

It was also noted that the results obtained were consistent with the results of previous similar studies. Therefore, the results of this study will guide future research in the field of cultural intelligence and provide the following recommendations:

- individuals will be more effective in adapting to cultural differences outside their own culture when interacting with people from that culture.

- an important element in intercultural interaction and an important factor in ensuring successful integration is the language knowledge of that culture. For this reason, participants should be fluent in the language of the culture they live in.

- future studies can investigate the impact of cultural intelligence on an individual' s personality and how people' s presence in different cultural environments can affect their personality. Therefore, in future studies, the dimensions of cultural intelligence can be considered separately.

Conclusion. This study empirically examined the effect of cultural intelligence and cultural adaptation on the academic performance of international students studying at Khoja Akhmet Yassawi International Kazakh-Turkish University. The findings demonstrate that cultural intelligence - particularly its metacognitive and motivational dimensions - serves as a strong predictor of students' academic success, whereas the cognitive dimension shows a comparatively weaker influence. Similarly, adaptation to the physical, social, and academic/work environment emerged as a significant determinant of academic outcomes, indicating that adjustment challenges extend beyond cultural knowledge and encompass students' everyday interactions, emotional comfort, and integration into the learning ecosystem.

These results are broadly consistent with previous studies emphasizing the critical role of cultural adaptation in educational attainment. For instance, research by Earley & Mosakowski (2004) [12], Templer et al. (2006) [14], and Berry (2005) [4] similarly report that higher cultural adjustment is associated with lower acculturative stress and better academic outcomes among international students. Furthermore, our findings regarding the metacognitive and motivational components of cultural intelligence align with Ang et al. (2007) [5], who argue that students capable of regulating cultural knowledge and maintaining motivation in diverse environments are more likely to succeed academically. The weaker influence of the cognitive dimension also echoes earlier empirical studies demonstrating that mere cultural knowledge is insufficient without the ability to apply it effectively in real social contexts.

Beyond theoretical alignment, the results

have important practical implications for higher education management. Universities hosting international students must recognize that cultural adaptation is not an automatic process but a developmental trajectory requiring systematic support. Intercultural communication training, language assistance, mentorship programs, and socially inclusive campus environments can substantially improve students' adjustment experiences. Academic advisors and faculty should also be trained to recognize cultural barriers that may hinder performance and provide culturally responsive pedagogical strategies.

Moreover, strengthening institutional support systems contributes not only to individual student performance but also to broader policy goals. Enhancing cultural adaptation aligns with Sustainable Development Goal 4 by ensuring equitable, inclusive, and quality education for diverse student groups. As higher education becomes increasingly internationalized, universities that invest in cultural intelligence development and structured adaptation programs will be better positioned to attract, retain, and empower global learners.

In conclusion, the study reaffirms that cultural intelligence and cultural adaptation are foundational to the academic success of international students. Future research could further explore longitudinal effects, mediating variables such as acculturative stress or social support, and comparative analyses across different cultural or institutional contexts. Such extensions would deepen our understanding of how multicultural learning environments can be designed to unlock the full academic potential of international student populations.

References

1. . Tang L., Zhang Ch., Cui Y. Beyond borders: The effects of perceived cultural distance, cultural intelligence, cross-cultural adaptation on academic performance among international students of higher education // International Journal of Intercultural Relations. -2024. -Vol.103: 102083. DOI 10.1016/j.ijintrel.2024.102083.

2. . Robert B. A Formal Concept of Culture in the Classification of Alfred L. Kroeber and Clyde Kluckhohn // Analecta. -2016. -Vol. XXV. -P.61–101.

3. Fiori M., Vesely-Maillefer A.K. Emotional Intelligence as an Ability: Theory, Challenges, and New Directions // Emotional Intelligence in Education. -2018. -P.23-47. DOI 10.1007/978-3-319-90633-1_2.

4. Berry J.W., Colleen W. Commentary on Redefining Interactions Across Cultures and Organizations // Group & Organization Management. -2006. -Vol.31(1). -P.64-78. DOI 10.1177/1059601105275264.

5. Ang S., Van Dyne L., Koh C., Ng K.Y., Templer K.J., Tay C., Chandrasekar N.A. Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance // Management and Organization Review. -2007. -Vol.3 (3). -P.335-371. DOI 10.1111/j.1740-8784.2007.00082.x.

6. Khoja Ahmet Yassawi International Kazakh–Turkish University. University website. – URL: https: //ayu.edu.kz/en/2795/surdurulebilir-kalkinma-hedefleri. –Date of access: 02.08.2025.

7. Satybaldiyeva D., Mukhanova G., Tymbayeva Zh., Tyshkanbayeva M., Bolatkyzy S. Applying the expert method to determine a company's strategic goals // Transport Problems. -2023. -Vol.18 (2). -P. 123–132. DOI 10.20858/tp.2023.18.2.11

8. Tymbayeva Zh., Satybaldiyeva D., Kakitayeva Zh., Kazhmuratova A. Evaluation of the Feasibility of Maintaining Sustainable Consumer Behavior Among Generation Z Youth in Almaty// Eurasian Journal of Economic and Business Studies. -2024. -Vol.68 (4). -P.5–17. DOI 10.47703/ejebs.v68i4.428.

9. Triandis H.C. Cultural Intelligence in Organisations // Group & Organisation Management. -2006. -Vol.31 (1). -P.20–26. DOI 10.1177/1059601105275253.

10. Earley P.Ch., Ang S., Tan J.S. CQ: Developing Cultural Intelligence at Work //California: Stanford University Press. -2006. DOI 10.1515/9781503619715.

11. Earley P.Ch., Mosakowski E. Cultural intelligence // Harvard Business Review. -2004. -Vol.82 (10). -P.139–146: 158. DOI 10.1007/978-3-8349-8724-2_4.

12. Earley P.Ch., Mosakowski E. Toward culture intelligence: turning cultural differences into a workplace advantage //Academy of Management Perspectives. -2004. -Vol.18 (3). -P.151–157. DOI 10.5465/AME.2004.28561784.

13. Thomas D.C., Inkson K. Cultural Intelligence: People skills for a global workplace/ Berrett-Koehler Publishers. -2004. -240 p. ISBN-13 978-1576752562.

14. Templer K.J., Cheryl T., Anand N.Ch. Motivational Cultural Intelligence, Realistic Job Preview, Realistic Living Conditions Preview, and Cross-cultural Adjustment // Group & Organization Management. -2006. -Vol.31 (1). -P.154–173. DOI 10.1177/1059601105275293.

15. Burhanuddin B., Ben F., Supriyanto A., Sunandar A., Sunarni S., Sumarsono R.B. Effects of university organizational culture on student academic behavior in Indonesia // International Journal of Educational Management. -2024. -Vol.38 (2). -P.549–567. DOI 10.1108/IJEM-11-2023-0553.

16. Yeşil S. Kültürel Farklılıkların Yönetimi ve Alternatif Bir Strateji: Kültürel Zeka// Karamanoğlu Mehmetbey Üniversitesi Sosyal Ve Ekonomik Araştırmalar Dergi. -2009. -Vol.11 (16). -P.100–131. [in Turkish]

17. Moran R.T., Harris P.R., Moran S.V. Managing Cultural Differences: Global Leadership Skills and Knowledge for the 21st Century, 8th ed./Routledge. -2011. -586 p. DOI https://doi.org/10.4324/9781856179249.

18. Sheng L., Dai J., Lei J. The impacts of academic adaptation on psychological and sociocultural adaptation among international students in China: The moderating role of friendship // International Journal of Intercultural Relations. -2022. -Vol.8(6). -P.79–89. DOI 10.1016/j.ijintrel.2022.06.001.

19. Black J. Work Role Transitions: A Study of American Expatriate Managers in Japan // Journal of International Business Studies. -1988. -Vol.19. -P.277–294. DOI 10.1057/palgrave.jibs.8490383.

20. Black J.S., Stephens G.K. The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignments // Journal of Management. -1989. -Vol.15 (4). -P. 529–544. DOI 10.1177/014920638901500403.

21. Ang S., Van Dyne L., Koh C. Personality Correlates of the Four-Factor Model of Cultural Intelligence // Group & Organization Management. -2006. -Vol.31 (1). -P.100–123. DOI 10.1177/1059601105275267.

Сведения об авторах

Сатыбалдиева Д.О. - PhD, ассоциированный профессор, Казахский национальный исследовательский технический университет им.К.И.Сатпаева, Алматы, Казахстан, e-mail:d.satybaldiyeva@satbayev.university;

Кенешбаев Б.Ж. - PhD, старший преподаватель, Международный казахско-турецкий университет им. Ходжи Ахмеда Ясави, Туркестан, Казахстан, e-mail: keneshbayev_bektur@ayu.edu.kz;

Тажибаева Р.М. - к.э.н., ассоциированный профессор (доцент), Международный университет туризма и гостеприимства, Туркестан, Казахстан, e-mail raihan.tazhibaeva@iuth.edu.kz;

Калтаева С.А. - к.э.н., ассоциированный профессор (доцент), Международный университет туризма и гостеприимства, Туркестан, Казахстан, e-mail saule.kaltaeva@iuth.edu.kz;

Муталиева А.А. - PhD, старший преподаватель, Региональный инновационный университет, Шымкент, Казахстан, e-mail: Alua012@mail.ru.

Information about the authors

Satybaldiyeva D.O. - PhD, Associate Professor, K.I. Satbayev Kazakh National Research Technical University, Almaty, Kazakhstan, e-mail: d.satybaldiyeva@satbayev.university;

Keneshbayev B.Zh. - Ph.D., Senior Lecturer, Khoja Akhmet Yassawi International Kazakh–Turkish University, Turkestan, Kazakhstan, e-mail: keneshbayev_bektur@ayu.edu.kz;

Tazhibayeva R.M. - Candidate of Economic Sciences, Associate Professor (Docent), International University of Tourism and Hospitality, Turkestan, Kazakhstan, e-mail: raihan.tazhibaeva@iuth.edu.kz;

Kaltayeva S.A. - Candidate of Economic Sciences, Associate Professor (Docent), International University of Tourism and Hospitality, Turkestan, Kazakhstan, e-mail: saule.kaltaeva@iuth.edu.kz;

Mutaliyeva A.A. - PhD, Senior Lecturer, Regional Innovation University, Shymkent, Kazakhstan, e-mail: Alua012@mail.ru.