

## **Connecting Fulbright and UniCEN: Developing International Learning Experiences in Global Environment and a Sustainable Goals Project.**

### **Dr. Tatiana V. Goris, Pittsburg State University**

Dr. Tatiana Goris (tgoris@pittstate.edu) is an Associate Professor of Technology and Workforce Learning and a Coordinator for "Master of Science in Technology" graduate program at Pittsburg State University (Kansas). Her recent international research record includes completed Fulbright Specialist projects in Central Asia, and UniCen initiatives sponsored by the American Council for International Education.

### **Mr. Zeshan Ahmad Shah, Pittsburg State University**

Mr. Zeshan A. Shah, native of Pakistan, is a recent alumnus of Pittsburg State University (Pittsburg, Kansas). In May 2023 he successfully completed "Master of Science in Technology" degree with an emphasis in Information Technology. As a part of his graduate study, Zeshan was personally involved in the described research project (as a team-leader and Graduate Teaching Assistant) helping to collect and to interpret unique multicultural student perspectives.

# Connecting Fulbright and UniCen: Developing International Learning Experience in Global Environment, Sustainable Goals Project

## *Abstract*

We are pleased to present results of the recent research study completed by the graduate students of American State University located in Kansas and their counterparts from the Central Asian State Institution from Kirgizstan through February–May, 2022. The study was a part of the UniCen Spring COIL Initiative funded by the by the U.S. Embassy in Tashkent (Uzbekistan) and American Councils for International Education. The core purpose of UniCen virtual collaborations focuses on establishing substantive international engagement between higher education institutions in the U.S. and Central Asian regions. The suggested research topics in 2022 offered to jointly address five United Nations Sustainable Development Goals (UN SDGs) such as: clean water and sanitation; affordable clean energy; decent work and economic growth; responsible consumption and production; and climate action. The present study has focused on the fourth goal: responsible consumption and production.

Sixteen international graduate students from the U.S. institution and six candidates from Kirgizstan had been combined into five groups where they worked on chosen topics using Zoom in a variety of formats. As a final step of their collaborations, five YouTube videos with reported findings had been produced by each team accordingly. There is no doubt that a such stimulating learning experience was new for all participants. The most challenges were caused by student diverse perspectives on the same topics, a significant time zone difference between Kansas, U.S. and Kirgizstan, substantial cultural variances and mental models. The present report focuses on the most significant dilemmas faced by the students when working on complicated topics in international teams.

## **1. Introduction**

In Spring 2018 one of the authors of the present study participated in Fulbright Specialist program in the Central Asian region (Uzbekistan, project FSP-P001840) helping the local faculty and school administrators to revise their STEM curriculums and research methodologies at the local host institution of higher education. While being there, it was clearly noticed that Uzbek and American researchers have different meanings for the same words or linguistical phrases. For example, concepts of “learning”, “conducting research” or “grant-writing activities” have been understood under very different angles based on cultural settings, communicational abilities, or even financial sources. Therefore, when working together, various misconceptions regarding proposed tasks required consistent clarifications among multicultural participants. This factor caught authors’ attentions: the issue was broader than just limited English proficiency of the local Uzbek faculty or students. Even those who spoke English fluently, they thought very differently about goals and outcomes of common team working. As an American faculty-member who works with international graduate students on a routine daily basis, multicultural communications became a topic of the author’s special interests. Proficiency in any foreign language does not always guarantee (and often does not guarantee at all) a quick cultural agistment to new working and

learning settings. Concluding the story about our Fulbright project, we should briefly point that one year later (in Fall 2019), Uzbek school administrators from the host institution visited the U.S. with a purpose of establishing international collaborations between our two institutions and gave their students' new opportunities to achieve new educational horizons.

In Spring 2020 (during COVID19 pandemic) when a majority of research activities moved in online settings), the American Council for International Education granted us with an opportunity to participate in another multicultural project (called UniCen COIL). American Councils is a well-known International nonprofit focused on exchanges, professional training, and critical languages. The main goals of the Central Asia University Partnerships Grants Program (UniCen) is to build capacity for substantive international engagement between higher education institutions in the United States and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan). According to their official website, the UniCen Spring COIL Initiative, is a semester long exchange between participating faculty, partnering U.S. and Central Asian Higher Education Institutions. As part of this initiative, faculty engaged in a four-week professional development course to learn, understand and design a virtual experiential learning experience through Collaborative Online International Learning (COIL). Speaking in general, UniCen is a network for U.S. and Central Asian universities to:

- Navigate the challenging global international education environment;
- Test innovative methods for virtual exchanges;
- Adapt policies, practices, and administrative structures for online teaching and learning;
- Integrate technology solutions;
- Co-create curriculum for virtual faculty and student exchanges.
- Strengthen institutional capacity to support long-term partnerships between U.S. and Central Asian universities with economic-based outcomes.

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## **2. Purpose of the Study**

The original goal of the present research focused on two main targets:

- First, presenting students with new ideas and approaches when designing technological products. Often when preparing future technologists, educational processes in Central Asian Countries (including Kirgizstan) may not have sufficient training regarding social, economic, or even cultural impacts that such new products introduced to the market. Students are trained only in technical spectrums without thinking on other important factors.
- Identify the most common challenges for participants of different cultural backgrounds when working in remote settings on common projects in multicultural teams.

The present study was conducted under a mix-methods methodology employing descriptive analysis of participants' survey responses (in quantitative section), and personal interviews with three team-leaders (in qualitative section). Sixteen international graduate students from the

regional American University and five counterpart candidates from Kirgizstan had been combined into five online teams where they worked during a nine-week period on selected topics using Zoom or WhatsApp as communication tools. As a final step of their collaborations, five YouTube videos with reported findings had been produced by each team accordingly. There is no doubt that a such stimulating learning experience was new for all participants. The challenges were caused by student diverse perspectives on the same topics, a significant time zone difference between the U.S. and Central Asian region (Kirgizstan), substantial cultural and linguistic variances and even mental models.

### **3. Background / Literature Review**

As mentioned above, one of the main goals of UniCen projects is establishing strong collaborations between the U.S. and international institutions of higher education by providing students with opportunities to work in multicultural teams solving targeted problems. This approach can be transformed further preparing students to work in STEM fields on global-corporate or industrial levels. There is a strong need for such simulation real work environment platforms where potential co-workers (current graduate students) have to collaborate above their personal and cultural understandings of certain situations. Those collaborations with new and unfamiliar team members can be very sharp and challenging. In addition, it requires an extra time for establishing collegial trust and rapport.

The brief literature review below outlines main challenging factors that occur in teams when working in multiethnic work settings. Our collected qualitative data and participant survey-responses indicated similar communicative difficulties as outlined in previously published sources.

#### **3.1. Challenges Faced by Multicultural Employees with their Management Teams at Corporate Levels**

Fitzsimmons & Thomas [1] indicated that multicultural individuals (those who work in non-native language or cultural environments) sometimes see themselves in terms of minority status and often associate this with negative outcomes. Therefore, domestic teammates maybe expected by their multicultural co-workers to act as contacts because they are more likely to have boundary-crossing social networks and additional language skills, but when this expectation is added on top of employees' usual work expectations it can cause multicultural individuals to feel overburdened.

Trefry [2] noted that despite of good chances for being the most effective and productive teams, multicultural groups often become the least productive. Greater diversity among members makes communication and group dynamics expressively complex. Typical challenges of multicultural co-worker cohorts include a) team development is slower because time required to build rapport and trust is longer; b) communication among diverse people is more difficult and time-consuming; c) creating common understanding requires considerably more effort; and d) different expectations held by diverse people often lead to misunderstanding, conflict and more negative evaluations of each other. Such difficulties can reduce organizational performance and increase administrative costs through employee turnover and time required to solve the issues [2].

Speaking about cross-cultural behavior codes, Molinsky [3] pointed on psychological challenges of foreign managers and employees: they may lack cultural skills (or feel that they lack cultural skills) to successfully produce the required appropriate behavior for the foreign interaction, resulting in performance anxiety, or even embarrassment, in front of a critical, evaluative audience from the native culture [3]. In this case, a deficient linguistic vocabulary of non-native speakers may play a significant role to produce such confusions.

Fitzsimmons [4] defined multicultural employees as a composite material, which is something that is used in manufacturing because “they are particularly well-suited for the task – lighter, stronger, cheaper, or more flexible – but require more work up front in order to develop them”. Therefore, the most common challenge for organizations “to put the right conditions in place first, before they can reap the benefits of their multicultural work force” [4]. Another typical managerial misconception about multicultural employees is when they are perceived as a “homogenous group”. The organization may encourage employees to become highly identified with their organizations, influencing known benefits such as increasing effort, intrinsic motivation, organizational citizenship behaviors, and self-sacrifice for the sake of the organization”. Such approaches could be awkward because unique skills and abilities of multicultural personnel may be unavailable to their organizations if employees overly identify with them. Similar prospective was presented by D’Netto, et al. in [5].

Listed above challenges may be minimized when preparing future workforce in postsecondary educational settings. Providing students with educational opportunities to simulate real work environment in multicultural settings would certainly minimize communicational hitches when those candidates (former students) employed in diverse organizations. This issue can be specifically applied to international cohorts of graduate students who study in the U.S. institutions of higher education. The section below outlines typical communicational difficulties occurred between culturally diverse student cohorts on the U.S. campuses.

### **3.2. Communication Challenges Between American and International Students while at School**

Matsuda & Silva [6] pointed that International students had faced anxiety and challenges while being at an American Institutions. Often, their unwillingness to communicate with domestic English-native speaker peers indicates various fears. For instance, “One of the students who they have wrote about is Park, a student from Korea. Park in his reflective commentary had written about how depressed he was about getting a good grade and how he should “study English with American students”. He had also mentioned that he had trouble communicating with Americans and did not participate much in many of his classes. At first, he thought that it was the Americans' fault. He thought that the Americans did not want to communicate with him because of his nationality, and they would make fun of him if he tried to explain his thoughts during a class discussion” (p.24).

In their work, Rowlings & Sue [7] discussed a few factors of why Chinese students may feel isolated in an American classroom: “they feel misunderstood because of Limited English Proficiency and, as a result, they often segregate themselves from American students, or because they speak with an accent and clearly belong to an ethnic culture”. Another study [8] indicates that

once international (Asian) students come to the U.S. to further their education, “they bring their cultural heritage with them into American campus settings, where people follow a very different communication style and adopt different sets of cultural values and assumptions about communication”.

#### 4. Methodology

During the nine weeks period five teams of international students from the U.S. and Kirgizstan worked on interdisciplinary projects where they had to choose any technologically advanced products for their further investigations by gathering information regarding:

- Materials Used to produce it;
- Physics behind / Working Principles (show how the product functions);
- Report the modern cost to produce it;
- Indicate social outcomes of a such product, and to explain how the product’s implementations had changed a routine daily life;
- How that product had changed in time;
- What disadvantages exists in the current version of the product;
- What should be improved on your (investigators’) opinions.

In 2022 the targeted UniCen topics were based on five UNESCO sustainable goals such as: (1) Clean Water and Sanitation, (2) Affordable and Clean Energy, (3) Decent Work and Economic Growth, (4) Responsible Consumption and Production, and (5) Climate Action. According to [9], UNESCO has been promoting Education for Sustainable Development (ESD) since 1992. It led the UN Decade for ESD from 2005 to 2014 and is now spearheading its follow-up, the Global Action Program (GAP) on ESD. Global issues (for example, climate change) urgently require a shift in our lifestyles and a transformation of the way we think and act. Education systems must respond to this pressing need by defining relevant learning objectives and learning contents, introducing pedagogies that empower learners, and urging their institutions to include sustainability principles in their management structures. Participants of the present research study concentrated on the fourth goal such as “Responsible Consumption and Production”. They produced five video-projects (uploaded in YouTube) about technological changes in agriculture. Participants agreed that innovations in agricultural technologies is a hot topic and can be relatively applicable to both countries, the U.S. and Kirgizstan.

All students had to submit weekly progress reports, and in the end of the project – open ended essay-type questionnaire and demographic survey.

Certain Study Limitations must be stated upfront:

- By using conventual sampling technique (preselected available student groups), an unequal distribution of participants in teams should be reported. Typically, four students from the U.S. institution were matched with only one counterpart from Kirgizstan per team.
- Kirgiz participants were (on the average basis) at least five years older, and sometimes more professionally developed than students from the Kansas Institution.
- The present project for the U.S. participants was a part of the mandatory graduate level course GRT850 “Technology and Society”. That student cohort was graded by the end of

the semester. The pressure of receiving a “not right” (lower) grade could potentially influence survey & interview responses.

- All sixteen students enrolled in GRT750/Spring 2022 class were internationals as well: 14 from India, and two from Pakistan.
- Both student cohorts (from the U.S. and Kirgizstan) were non-native English speakers who communicated during the project only in English.

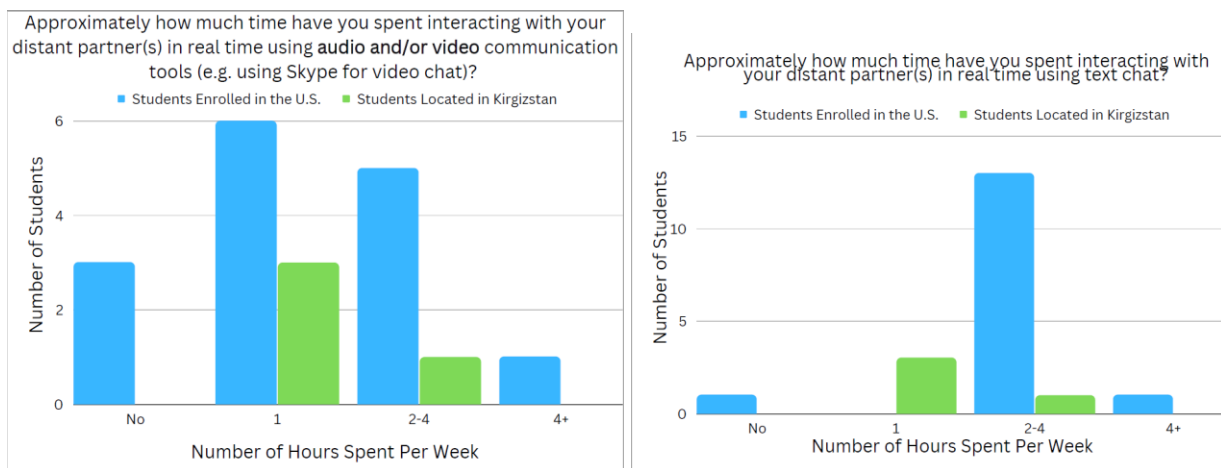
The list of created video projects and their YouTube links can be found in the next section.

## 5. Collected Data

Completed projects:

- Team 1 - Drones in Agriculture - [https://www.youtube.com/watch?v=H0jfNbWC\\_9w](https://www.youtube.com/watch?v=H0jfNbWC_9w)
- Team 2 - Modern Tractors - <https://www.youtube.com/watch?v=h9GUZFqI7II>
- Team 3 - Irrigation Systems - <https://www.youtube.com/watch?v=bas5Ei8mbdw>
- Team 4 - Farming Greenhouses - <https://www.youtube.com/watch?v=X5RYuJ7DcB8>
- Team 5 – Fertilizers - <https://www.youtube.com/watch?v=TmatedwbsQs>
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Data below presents student responses during the final survey regarding their multicultural work experience. The U.S. students who participated “for a grade” were more motivated and active, comparing to their team members in Kirgizstan for whom the UniCen engagement was “just a fun and interesting experience”. Data also indicates that visual conversations were more popular comparing to texting. This is an important factor for a productive collaboration, specifically when team members are unfamiliar to each other.



*Figure 1. Comparison of student responses: video versus text conversations*

Summarizing results of the final survey it should be pointed that:

- In general, students provided positive feedbacks about cross cultural collaborations (from both sides, the U.S. and Kirgizstan);
- The concept of a global partnership with an ability to complete common tasks from different countries (across the Globe) was new for many of them;

- There were frequent complains on significant time zone difference (11 hours);
- Participants reported language-barrier issues at the beginning of the project. Although, “later it became better”;
- They all appreciated the opportunity to be “out of your box” or comfort zones.
- Quantitative survey data shows that students from the U.S. institution (origins of India and Pakistan) were more motivated for new international opportunities. Although, their age group was younger and less experienced comparing to participants from Kirgizstan.

Supporting obtained quantitative survey data, the following interview-response of the team-leader (from the U.S. institution) provides a deeper qualitative look into their multicultural team work:

*“Being part of the project with a diverse group of participants has been a unique experience for me, full of opportunities for learning. One of the highlights of the project was being the leader of the group, which included two Indian students, students from Kyrgyzstan, and myself as a Pakistani student. As a group leader, I faced several difficulties:*

- *Communication with team members in different time zones was challenging, as when it was daytime in the USA, it was nighttime for the participants in Kyrgyzstan, slowing down our communication.*
- *Cultural differences also made it difficult to have smooth communication, even though we tried to set up a group chat at a fixed time. Due to the different cultural backgrounds, not all members were always on time, requiring me to make extra efforts to reach each person individually, which was time-consuming.*
- *The different spoken languages also posed a big challenge, as we decided to communicate in English. However, none of us were proficient in the language, which took up a lot of time and made it difficult to progress.*
- *Sometimes, team members misinterpreted each other's thoughts, leading to confusion during our next meeting. Each team member had different ideas for the project, which were discussed in the group chat. However, once we agreed on a point, no one followed through with it. I observed that when a team member presented an idea, everyone agreed without examining the idea and its drawbacks.*
- *During reviews, no one remembered what the agreed-upon idea was or how to implement it, causing problems with meeting deadlines”.*

In a conclusion, it should be pointed that the present study can be described as a successful interdisciplinary simulation environment that teaches students to evaluate extensive cultural dilemmas when working on complicated topics in large international (or global & corporate) teams. We sincerely hope that in a near future this completed online project will be transformed (after receiving required funding) into ongoing on-site training.

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