

# Summer Multicultural Institute for Linked Education (SMILE) in Korea: Enhancing Educators' Cultural Competency and Affinity

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## Abstract

*This study explores the Summer Multicultural Institute for Linked Education (SMILE) project, a structured study-abroad program aimed at enhancing educators' cultural competency in diverse classrooms. Six participants – four professors and two elementary teachers – engaged in immersive experiences in Korea, focusing on language, culture, and education. Through pre-departure preparation, in-country interactions, and post-program reflections, they collaborated with Korean educators and students, fostering culturally responsive teaching. Findings show that the SMILE project significantly improved participants' cultural competency, self-efficacy, and ability to integrate culturally relevant content, promoting inclusivity. This study underscores the transformative impact of international exchanges on educators' professional identities and highlights the importance of culturally responsive pedagogy in addressing educational disparities. The results have broader implications for teacher training and policy, suggesting that structured cultural competency frameworks can improve teaching effectiveness in diverse classrooms globally.*

**Key words:** *cross-cultural collaboration; cultural competency; culturally responsive teaching; diverse student populations; international exchange; teacher education*

## Introduction

In today's increasingly diverse educational landscape, institutions face the significant challenge of delivering effective instruction to students from a variety of cultural and linguistic backgrounds. Educators often struggle to adequately integrate their students' linguistic and cultural identities into their teaching methodologies due to

a lack of specialized training (Bencze & Hodson, 2014). This preparation gap not only undermines teachers' confidence in engaging with culturally and linguistically diverse (CLD) students, but also contributes to persistent achievement disparities between majority and minority student groups (National Research Council, 2012; Osborne et al., 2003).

The SMILE project is particularly important as it addresses these critical shortcomings within teacher education frameworks by focusing on teachers' professional identities and beliefs around culturally responsive teaching and equitable instruction. Research highlights that educators' beliefs regarding diversity significantly impact their self-efficacy and professional identities, which in turn shape their instructional practices (Gay, 2018; Mensah, 2019). By fostering cultural competence – defined as the ability to recognize, respect, and effectively integrate students' diverse cultural backgrounds into the learning experience – teachers can cultivate inclusive environments that substantially enhance academic outcomes for CLD students (Villegas & Lucas, 2002).

Closing the achievement gap between majority and minority students is a pressing goal for educational practitioners and policymakers (Lambert & Ariza, 2008). The SMILE project responds to this need by offering targeted training aimed at enhancing science educators' cultural competence, methodological skills, and instructional strategies suitable for diverse classrooms. Through a focus on cross-cultural learning and the adoption of research-based practices, the project seeks to transform the educational landscape towards a more equitable and inclusive model of science education.

### ***Literature review***

Developing effective pedagogical knowledge and instructional skills in multicultural settings requires a nuanced understanding of cultural responsiveness that transcends mere exposure to diverse cultures. Culturally Responsive Teaching (CRT), as outlined by Gay (2010), emphasizes the necessity for educators to weave students' cultural backgrounds into their instructional strategies, thus fostering meaningful and impactful learning experiences. Cross-cultural learning is pivotal in enhancing teachers' cultural competence, enriching their awareness of diverse linguistic, social, and cognitive perspectives (Ladson-Billings, 1995).

Teacher beliefs play a crucial role in shaping classroom practices, significantly influencing educators' approaches to diversity and student engagement (Fives & Gill, 2015). Research indicates that teachers who participate in cross-cultural experiences not only broaden their cultural awareness but also engage in critical reflection regarding their implicit biases and assumptions (Villegas & Lucas, 2002). Such reflective processes are essential in developing inclusive teaching strategies that cater to diverse learning needs.

From a sociocultural perspective (Vygotsky, 1978), learning is inherently a social construct bolstered by interactions with others, making cross-cultural experiences invaluable for educators. Engaging in cross-cultural learning involves acquiring or adapting knowledge and pedagogical techniques from different national contexts, which

can foster a deeper appreciation for the varied linguistic, cultural, and educational frameworks that shape teaching and learning (Tagle, 2021). Studies indicate that both pre-service and in-service teachers report heightened understanding and interest in diverse cultures as a result of these immersive experiences (Huang, 2013; Roane, 2008; S erriere & Mason, 2008).

Furthermore, professional development tailored to multicultural contexts has demonstrated substantial improvements in both teaching efficacy and student outcomes. Evidence shows that teachers who engage in structured international exchange programs gain confidence in employing culturally responsive teaching strategies, resulting in enhanced student engagement and academic performance (LaFave et al., 2017; Woo et al., 2010). Collaborative international teaching models, such as pairing American and South Korean teacher candidates to design and deliver joint lessons, have yielded similar positive outcomes (Yoon et al., 2011; Yoon & Han, 2015), reinforcing the importance of culturally relevant pedagogy (Ladson-Billings, 1995) in driving student success.

Moreover, studies of international exchange programs reveal that teachers applying broadened perspectives from cross-cultural experiences to their instructional practices yield increased student achievement and improved self-efficacy (Woo et al., 2010). This aligns with research on teacher identity formation, which posits that educators' backgrounds, experiences, and personal beliefs significantly inform their instructional methodologies and interactions with students (Beauchamp & Thomas, 2009).

### ***Purposes of the study***

The SMILE (Summer Multicultural Institute for Linked Education) project was developed in response to the pressing need for enhanced professional development opportunities for educators who work with culturally and linguistically diverse (CLD) students. Rooted in the principles of culturally responsive teaching (CRT) (Gay, 2010) and the sociocultural learning framework (Vygotsky, 1978), the project aims to provide educators with the tools and strategies necessary to create inclusive and equitable learning environments. The specific purposes of this study include:

1. **Enhancing Cultural Competence:** To assess the extent to which participation in the SMILE project enhances educators' cultural competence, equipping them with the understanding and skills necessary to effectively teach diverse student populations.
2. **Boosting Affinity and Self-Efficacy:** To evaluate how the project fosters educators' affinity for and self-efficacy in supporting CLD students, thereby improving their confidence and effectiveness in diverse classrooms.
3. **Shaping Perceptions of International Education:** To explore how engagement in South Korean classrooms and educational contexts influences participants' perceptions of international education systems, potentially broadening their teaching philosophies and approaches.

4. Improving Instructional Strategies: To determine how the project enhances participants' abilities to design and implement culturally responsive instructional strategies that meet the needs of their diverse learners, ensuring that all students have equitable opportunities to succeed.

### **Research questions**

The SMILE project seeks to address four key research questions:

1. To what extent does participation in the SMILE project enhance educators' cultural competence and their ability to recognize and integrate diverse cultural backgrounds into their teaching practices?
2. How does the project influence the participants' affinity for working with culturally and linguistically diverse (CLD) students, and what impact does this have on their self-efficacy in implementing inclusive teaching strategies?
3. In what ways does engagement in South Korean classrooms and educational contexts shape the participants' perceptions and understandings of global educational systems, and how does this influence their teaching philosophies?
4. To what extent does the SMILE project improve the participants' ability to design and implement culturally responsive instructional strategies that effectively support diverse learners in their classrooms?

### **Methodology**

This study employed a convergent mixed-methods design in which both quantitative and qualitative data were collected in parallel, analyzed separately, and then integrated to provide a comprehensive understanding of the project's impact. The mixed-methods approach applied to both data collection and analysis. Quantitative measures, such as pre- and post-project surveys, assessed the participants' self-efficacy, cultural competence, and attitudes, while qualitative methods—interviews, reflective journals, and instructional plans—captured the participants' lived experiences and pedagogical growth. By combining these approaches, the study provided both measurable outcomes and rich, contextualized insights into how culturally responsive practices were developed through the SMILE project.

Given the small sample size ( $n = 6$ ), statistical analyses were conducted with caution. Paired-samples t-tests were initially used to compare the participants' pre- and post-project survey scores. However, because the assumption of normality is difficult to justify with such a small sample, the Wilcoxon signed-rank test was also employed as a nonparametric alternative (Field, 2018). This approach allowed us to examine whether the observed changes in the participants' self-reported outcomes were consistent across both parametric and nonparametric methods. Reporting both results provides greater transparency and acknowledges the limitations of relying solely on parametric tests in small-sample research.

### ***Participants and context***

This study involved six participants – four university professors and two in-service teachers – who were recruited specifically for the SMILE project. The recruitment was conducted through a targeted invitation process, where educators with demonstrated interest in culturally responsive pedagogy and prior experience working with culturally and linguistically diverse (CLD) students were invited to participate. While the small sample size reflects the project's focus on in-depth professional development with a select group, it also limits the generalizability of the findings. Instead, the study aims to provide rich, contextualized insights into how culturally responsive practices can be developed and adapted within the Korean educational setting.

The participants, consisting of four females and two males, represented a range of disciplines, years of teaching experience, and linguistic and cultural backgrounds. Their diverse expertise created a collaborative learning environment that fostered exploration of culturally responsive strategies from multiple perspectives.

#### University Professors:

- **P1** had over 30 years of experience preparing elementary teachers, specializing in second language acquisition and ESL/bilingual education. His work focused on supporting linguistically diverse students and advocating for equitable educational opportunities.
- **P2** held a Ph.D. in astronomy with over 10 years of experience in higher education, primarily instructing pre-service teachers on physics.
- **P3** specialized in mathematics education for elementary and middle schools, with four years of teaching experience in higher education. Her work emphasized integrating real-world applications into mathematics instruction.
- **P4** was a statistician and research specialist with over four years of teaching experience in higher education, focusing on quantitative research methods and data analysis in education.

#### In-Service Teachers:

- **T1** was an elementary-level science and social studies teacher with six years of experience in public schools. He had worked extensively with culturally and linguistically diverse (CLD) students and implemented differentiated instructional strategies.
- **T2** was a reading specialist with four years of experience, working closely with students from multilingual backgrounds to enhance literacy skills.

By design, this small but diverse group provided a concentrated setting for testing and refining culturally responsive teaching practices. Their active engagement in the SMILE project contributed to the development of practical tools and reflective practices that, while context-specific, may offer transferable insights for broader applications in multicultural education. The participants' backgrounds are documented in Table 1.

Table 1  
Background of the participants

|    | Sex | Experience | Position                            | Language        |
|----|-----|------------|-------------------------------------|-----------------|
| P1 | M   | 30 years   | Professor of Bilingual Education    | Spanish/English |
| P2 | F   | 10 years   | Professor of Physics & Astronomy    | Hindi/English   |
| P3 | F   | 10 years   | Professor of Math Education         | English         |
| P4 | F   | 4 years    | Professor of Statistic              | English         |
| T1 | M   | 6 years    | Teacher of Science & Social Studies | English/Korea   |
| T2 | F   | 4 years    | Teacher of Reading                  | English/Spanish |

### Project phases

The SMILE in Korea project was structured into three phases, each incorporating qualitative methods to capture the teachers’ personal narratives, reflections, and case studies of their experiences.

#### *Phase 1: Pre-Departure Orientation*

Participants engaged in a five-day orientation in the U.S., which prepared them for the immersive experience in Korea. This phase included:

- Workshops on Korean culture, language, and education, led by experts in Korean studies.
- Interactive discussions on culturally responsive teaching, where participants reflected on their past experiences in working with CLD students and set their personal learning goals.
- Case study analysis of Korean classrooms, allowing participants to compare instructional strategies used in Korea and the U.S.
- Pre-project interviews, where the participants shared their initial beliefs and expectations regarding Korean education and cross-cultural teaching.

#### *Phase 2: SMILE in Korea*

The four-week summer institute was held at a prestigious private university in Seoul, recognized for its excellence in education and research. This phase integrated qualitative data collection through observations, interviews, and reflective journals. Key activities included:

- Korean Language and Culture Instruction: Participants engaged in daily six-hour language and culture immersion sessions facilitated by instructors from the university’s Korean language center. They documented their learning progress and cultural insights through weekly reflective journals.
- School Visits and Classroom Observations: Participants visited elementary, middle, and high schools in Seoul, observing instructional practices and engaging in discussions with Korean educators. Field notes and post-visit reflections were collected to capture their evolving perceptions of Korean pedagogy.
- Collaborations with Korean Educators: Each participant was paired with a Korean teacher or graduate student for peer discussions and co-lesson development.

These exchanges were recorded through semi-structured interviews focusing on cross-cultural instructional strategies.

- Educational Seminars and Policy Discussions: Experts from the Korean Ministry of Education and research institutions led sessions on current issues in Korean education. Participants engaged in group discussions and analytical reflections, later contributing to their post-project action plans.
- Cultural Excursions and Community Engagement: Visits to museums, historical sites, and community centers were designed to deepen the participants' understanding of Korean heritage. Through ethnographic field notes, they reflected on how cultural history informs education and identity.

### *Phase 3: Follow-Up Activities*

Upon returning to the U.S., the participants engaged in a semester-long reflection and dissemination process, including:

- Post-Project Interviews: The participants shared how the experience shaped their instructional practices and attitudes toward CLD students.
- Online Reflection Groups: Monthly virtual meetings facilitated discussions on integrating Korean educational strategies into U.S. classrooms.
- Action Research Projects: The participants developed culturally responsive lesson plans and implemented them in their classrooms, documenting student engagement and learning outcomes.
- Conference Presentations and Publications: Several participants presented their findings at education conferences, contributing to the broader discourse on cross-cultural teacher education.

### ***Curriculum design and instructional framework***

The curriculum of the SMILE in Korea project was designed around two main components: (1) learning about Korean language, history, culture, and education, and (2) developing and sharing culturally responsive lessons. Throughout the project, educators participated in interdisciplinary activities aimed at deepening their understanding of various aspects of Korean culture, including politics, art, music, dance, food, clothing, housing, and geography. The curriculum was guided by the following key principles:

- Integration of Cultural Learning: Participants engaged in structured activities that connected lesson concepts to elements of Korean culture. This approach emphasized the importance of culturally relevant content in education, allowing participants to see how cultural contexts shape teaching and learning.
- Utilization of the 5E Learning Cycle: The curriculum was structured around the 5E instructional model – engagement, exploration, explanation, extension, and evaluation—which is known to enhance student achievement and attitudes (Cakir, 2017; Uyanik, 2016). This inquiry-based framework encouraged participants to:

- Engage: Investigate natural phenomena related to Korean culture.  
Explore: Participate in hands-on exploration facilitated by educators who provided relevant resources and guidance.  
Explain: Share observations and discuss concepts, introducing appropriate scientific and cultural terminology.  
Extend: Apply newfound knowledge in novel contexts, fostering the ability to transfer skills across various cultural and educational settings.  
Evaluate: Continuously assess comprehension and progress, ensuring that the learning objectives were met.
- Culturally Responsive Instruction: The curriculum incorporated elements of culturally responsive teaching (CRT), emphasizing the connection between students' cultural backgrounds and their learning experiences (Gay, 2010). By working closely with fluent English-speaking Korean pre-service and in-service teachers, the participants gained valuable cultural insights that informed the development of culturally responsive instructional materials.
- Alignment with the Science, Technology, and Society (STS) Learning Model: Activities aligned with the STS Learning Model encouraged participants to act as researchers, exploring real-world environmental issues and developing practical solutions. This approach included student-centered activities, such as community projects, role-play contests, documentary film projects, classroom experiments, and group discussions (Petty & Narayan, 2012; NRC, 2012; Yoon & Ko, 2013).

An example of a culturally responsive science lesson using the 5E learning cycle is provided in Table 2, with multicultural components highlighted in italics (Yoon & Martin, 2017).

Table 2  
*One Example of Culturally responsive Science Activity*

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Grade 2

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Topic Question  
What is a rock?

TEKS—Texas Essential Knowledge and Skills [State curriculum]

(7) Earth and space - The student will be informed that rock is a fundamental earth material. (A) The student is expected to observe and describe rocks by texture and color.

Objectives

1 Students will discover characteristics of rocks and develop a rock chart from a group of specimens.

2 *Students will explore how and why rocks are different around the world.*

Materials

Variety of rock specimens, baggies (ziplock) (large and small sizes), newspapers

| Phases of the 5E model   | Questions  |
|--|--|
| Engage.<br>Ask questions about objects, organisms, and events in their environment.  | 1 Where have you seen rocks in your town? (Knowledge)<br>2 Describe the texture and color of the rocks. (Comprehension)<br>Teacher shows the students a bag with various rocks and asks them to find where they can find those rocks.  |
| Explore.<br>Ask questions to gather evidence to answer the question posed.   | 3 Ask students to select one rock from the bag, and without looking, describe it to the class.<br>4 What characteristics can you describe about your rock? (Analysis)<br>In groups, compare and contrast your rock with your peer's. (Analysis)<br>Students will take a mini field trip to the outdoors and find a unique rock to bring back to the classroom. Students will then merge into small groups and compare and contrast their rocks, looking at their shape, weight, size, color, texture, and other details that make their rock unique. |
| Explain.<br>Ask questions to use new knowledge and observable evidence to construct scientific explanations and answer initiating questions. | 5 What are the common characteristics that you found in the list (Synthesis)<br>As a class, create a list of common characteristics of rocks found by the students. Students will place their rock in the list of characteristics based on its attributes. They will share and connect their data, information, and observations to construct common characteristics of rocks.   |
| Elaborate.<br>Ask questions to apply new knowledge to new problems.  | 6 What makes the rocks different? (Analysis)<br>7 How does weathering affect each of these rocks differently? (Application)<br>From here, weathering can be introduced, explaining how it plays a part for each rock type.   |
|  | Multicultural Activity Addition  |
|  | 1 What types of rocks are found in Korea? (Please note: this is an example of one country that could be used. If possible, students can explore rocks from many more countries.) The students will "explore" rocks at the Seorak Mountain Cultural Science Park and compare them to other well-known rocks from America and their own rocks.   |
| Evaluate.<br>Ask questions to assess developing understanding and inquiry skills.  | <ul style="list-style-type: none"><li>• Observe the small group conversations while comparing and contrasting their rocks.</li><li>• Assess common and unique characteristics of rocks developed by the students.</li><li>• Assess the accuracy and value of the information written in their science journals. The journal will include all the characteristics of rocks they observed and an explanation of how they are different from rocks in Korea (or other countries around the world).</li></ul>  |

To develop culturally responsive instruction as the culmination of the project, the participants actively engaged in the carefully planned and thoughtfully designed SMILE in Korea project. During their time in Korea, the daily schedule included a variety of activities designed to immerse participants in the Korean language, history, and

culture. Mornings were dedicated to presentations by Korean professionals, offering participants valuable insights and fostering discussions on different aspects of Korea. Afternoons were filled with interactive displays and outdoor activities, providing hands-on experiences beyond the classroom. Specific activities included visits to historical sites, art and music museums, schools, the DMZ (Demilitarized Zone), modern concerts, and Korean food markets. Figure 1 illustrates their engagement in Korean calligraphy at Gyeongbok Palace.



*Figure 1. Afternoon Activity with Korean Calligraphy at Gyeongbok Palace*

In the evenings, the participants had time for online reading, research, or personal consultations with the project team, Korean professionals, and their local partners. Table 3 outlines the project timeline along with the objectives for each phase.

### ***Data collection tools***

The affinity survey, consisting of 25 questions, measured the participants' self-efficacy, personal interest, identity, and attitudes toward teaching diverse students. Adapted from the established scales – including the STEM Identity Scale (Singer et al., 2020), the Personal Interest Scale (Barbera et al., 2006), the Self-Concept of Ability and STEM Value Scales (Else-Quest et al., 2013), and the Attitude Toward STEM Scale (Germann, 1988) – the survey demonstrated high reliability. The STEM Affinity Test had a Cronbach's alpha exceeding 0.80, the Personal Interest scale ranged from 0.86 to 0.99 (Barbera et al., 2008), the Self-Concept of Ability Scale was approximately 0.80, and Task Value was reported at 0.81 (Else-Quest et al., 2013). The STEM Attitudes Scale had particularly high reliability ( $\alpha = 0.94$ ) (Germann, 1988).

The cultural survey, comprising 29 questions, evaluated the participants' cultural competence and their ability to teach with cultural sensitivity before and after the project. Adapted from Patel (2017) and Bucker et al. (2015), it exhibited high internal

Table 3  
Project Timeline along with the Objectives

| Objective  | Place  | Task  |
|--|--------|---|
| 1. Collaboration between the Institutions of Higher Education (IHE) in the U.S. and Korea. | U.S.A. | 1.1 The project team (PI & onsite Coordinator) and other key personnel at the partner university analyzed the findings from previous studies and developed educational materials, research design, and assessment tools for the project. The project team then updated the educational materials, research designs, and assessment tools for the project. |
|  |        | 1.2 The project team recruited and selected six educators (4 professors and 2 teachers).  |
| 2. Curriculum Development (Korean Materials)   | U.S.A. | 2.1 The project team held a 5-day pre-departure orientation with the participants. The participants took pre-tests and surveys at the beginning of the project to document knowledge and perceptions of various topics about Korea.   |
|  | Korea  | 2.2 The participants traveled to Korea and participated in a four-week language and culture program.  |
|  | U.S.A. | 2.3 The participants returned to the U.S.A. and had a post-workshop debriefing. They shared their experience in Korea and suggested how the experience helped them in the development of culturally responsive instruction. They answered the survey question at the end of the project abroad to document the project impact.                            |
|  | U.S.A. | 2.4 The participating teachers returned to their universities and schools to share what they have learned with colleagues and students.   |
|  | U.S.A. | 2.5 The participants had a chance to discuss their experience in Korea and they conducted and updated their instruction according to their classroom contexts for a semester.   |
|  | U.S.A. | 2.6 The project team analyzed the data to measure the participants' confidence in teaching and their abilities to develop their own culturally responsive science instruction for their students.   |
| 3. Dissemination of the project  | U.S.A. | 3.1 The project team updated the SMILE in Korea project including its curriculum and website, and developed manuscripts to submit to journals and national conferences.   |
|  |        | 3.2 The project team is preparing the manuscripts for journals and presenting the results at conferences.   |

consistency (Cronbach's  $\alpha = 0.896$ ). Additionally, modifications to the Cultural Intelligence Scale (CQS) (Gozzoli & Gazzaroli, 2018; Van Dyne et al., 2012) resulted in Cronbach's  $\alpha$  of 0.911.

To capture the participants' evolving perspectives and engagement with the Korean education system and culture, qualitative methods included semi-structured interviews, reflective journals, and the development of culturally responsive instructional plans. Interviews were conducted before and after the program to assess changes in cultural understanding and professional growth. These interviews provided flexibility for the

participants to elaborate on experiences, challenges, and insights gained throughout the project.

The participants kept reflective journals documenting their experiences, personal narratives, and evolving attitudes toward teaching in diverse classrooms. These journals provided rich qualitative data on the participants' cultural learning and pedagogical adaptations.

As a final qualitative measure, the participants developed culturally responsive instructional plans incorporating Korean cultural and linguistic elements. These lesson plans were analyzed to assess how effectively the participants had integrated cultural insights into their teaching strategies.

While quantitative surveys assessed satisfaction, functionality, and cultural competence, qualitative tools – interviews, journals, and instructional plans – captured the deeper, transformative experiences of participants. This mixed-methods approach provided a comprehensive understanding of the SMILE project's impact on educators' cultural competency and instructional practices.

## **Results**

### ***Affinity test***

The affinity test measured the participants' self-efficacy and personal interest before and after the program. Due to incomplete post-survey data, P1 was excluded, leaving five participants in the analysis.

Paired-samples t-tests showed increases in mean self-efficacy (from 3.78, SD = 0.29 to 4.22, SD = 0.65) and personal interest (from 3.76, SD = 0.39 to 4.08, SD = 0.70), but these changes were not statistically significant (self-efficacy:  $t(4) = 1.53$ ,  $p = .21$ ; personal interest:  $t(4) = 1.24$ ,  $p = .29$ ).

Because of the small sample size, Wilcoxon signed-rank tests were also conducted. The results confirmed no significant differences for self-efficacy ( $Z = -1.22$ ,  $p = .22$ ) or personal interest ( $Z = -0.94$ ,  $p = .35$ ). Nevertheless, individual-level changes were notable. P2 demonstrated the largest increase in both self-efficacy (+1.5) and personal interest (+0.9), while P3 reported decreases in both areas. T1 and T2 showed modest but positive growth across both measures. These results suggest that the program fostered growth in some individuals, though overall improvements were not statistically significant, likely due to the limited sample size.

### ***Cultural Test***

The cultural test measured cultural competence and cultural sensitivity. Paired-samples t-tests showed no significant change in cultural competence (from 4.08, SD = 0.18 to 4.08, SD = 0.39;  $t(4) = 0.00$ ,  $p = 1.00$ ), but a significant increase in cultural sensitivity (from 3.80, SD = 0.24 to 4.30, SD = 0.42;  $t(4) = 3.02$ ,  $p = .04$ ).

The Wilcoxon signed-rank tests provided further confirmation. Cultural competence remained stable ( $Z = 0.00$ ,  $p = 1.00$ ), while cultural sensitivity showed a significant

positive increase ( $Z = -2.02$ ,  $p = .04$ ). At the individual level, P3 exhibited the largest gain in cultural sensitivity (+1.2), while T1 and T2 also demonstrated meaningful increases (+0.3 and +0.7, respectively).

Taken together, the Wilcoxon results—more appropriate for a small sample—suggest that while the participants' sense of cultural competence remained unchanged, their cultural sensitivity significantly improved. This indicates that the program had heightened the participants' awareness and responsiveness to cultural differences, even if they did not perceive themselves as more skilled in managing cultural diversity in general. Table 4 provides a breakdown of the pre-test and post-test results.

Table 4  
Results of the Affinity and Cultural Test

| Participant | Self-Efficacy (Pre) | Self-Efficacy (Post) | Personal Interest (Pre) | Personal Interest (Post) | Cultural Competence (Pre) | Cultural Competence (Post) | Cultural Sensitivity (Pre) | Cultural Sensitivity (Post) |
|-------------|---------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| P2          | 3.5                 | 5.0                  | 3.8                     | 4.7                      | 4.1                       | 4.4                        | 4.2                        | 4.3                         |
| P3          | 4.2                 | 4.0                  | 3.8                     | 3.3                      | 4.0                       | 3.7                        | 3.6                        | 4.8                         |
| P4          | 3.5                 | 3.5                  | 3.8                     | 3.2                      | 3.9                       | 3.9                        | 3.8                        | 3.8                         |
| T1          | 3.9                 | 4.4                  | 3.2                     | 4.2                      | 4.1                       | 4.1                        | 3.8                        | 4.0                         |
| T2          | 3.8                 | 4.2                  | 4.2                     | 5.0                      | 4.3                       | 4.3                        | 3.6                        | 4.6                         |

### ***Survey about perceptions of korean education system***

#### **Pre-survey**

The participants had diverse perceptions of the Korean education system prior to the study, as follows:

- **P1** believed the Korean education system to be excellent, having based this perception on comments from colleagues and internet research. Additionally, P1 noted that the system has more instruction hours compared to other countries.
- **P2** compared the Korean education system to the Indian education system, highlighting similarities such as the emphasis on uniforms, academic competition, and respect for teachers.
- **P3** perceived the Korean education system as having a strong focus on high achievement. P3 mentioned that this focus is supported by the investment of teachers, the community, and parents. The perception was based on anecdotal information regarding national and international performance.
- **P4** described the Korean education system as more intense and competitive than the U.S. system, with higher test scores. This perception was influenced by information gathered from Korean friends and some research.
- **T1** observed that Korea places heavy emphasis on education, with entrance exams considered challenging. T1 also mentioned that families prioritize the education of their children from a young age. This perception stemmed from personal experiences and discussions with Koreans.

- **T2** noted that Korean students dedicate a significant amount of time to studying outside of school, and parents hold teachers in high regard.

The participants showed a keen interest in the Korean education system and formed a positive impression of it. They acknowledged several distinctive features, including the emphasis on uniforms, academic competition, extended instructional hours, rigorous exams, and a strong commitment to studying beyond regular school hours.

### **Post-survey**

The post-survey responses of the participants revealed a shift in their perception of the Korean education system:

**P1** acknowledged both the positive aspects and potential challenges in the Korean education system. He emphasized the need for meaningful instruction, practical applications of content, and addressed the impact of pressure on students. P1 also highlighted the limitations of implementing certain elements of the Korean system in the American context, particularly related to the tracking system for student athletes.

**P2** provided a comparative analysis of the Korean education system based on their observations and discussions with teachers and school administrators. They highlighted similarities and differences between public and private schools, and also compared the Korean and American education systems. P2 suggested incorporating aspects such as a rigorous science curriculum and the clean classroom system from Korea, while recognizing the potential challenges in implementing certain elements of the Korean system in the American context.

**P3** provided insights into the similarities and differences between the Korean and American education systems, highlighting areas for potential improvement in the U.S. system based on their observations of the Korean system. They appreciated the effective use of technology and the culture of support in Korean classrooms, while acknowledging the challenges in implementing certain aspects of the Korean system in the American context.

**P4** held a positive view of the Korean education system, praised its content, use of technology, and student behavior. They expressed a desire to adopt various aspects of the Korean system in the US, while acknowledging the unique challenges that existed in the American context.

**T1** acknowledged the positives and negatives of both the Korean and American education systems and expressed a desire to incorporate certain aspects of the Korean system into the U.S., while recognizing the challenges and differences between the two systems.

**T2** appreciated the emphasis on minimal assessment in the Korean system but believed that the American system struck a good balance between play and study. They suggested implementing the cleanliness of Korean classrooms in the U.S. but expressed concerns about the amount of studying expected from Korean students outside of school.

The participants gained a deeper understanding of the Korean education system, appreciating its strengths in academic excellence and achievement focus. They also noted its challenges, marked by intense academic demands, rigorous exams, early educational emphasis, and strong dedication to studying. They recognized differences between public and private education in Korea, with private schools being highly competitive for college and career readiness. Furthermore, the importance of culturally responsive instruction was highlighted as a significant project takeaway, underscoring the need for inclusive teaching practices.

### ***Participant journeys: transformations in understanding diverse students***

The project provided participants with firsthand insights into culturally responsive teaching, transforming their perspectives and instructional approaches:

- **P1's Journey:** Initially focused on the structural strengths of the Korean education system, P1's perspective shifted toward understanding the pressures students face. This realization led P1 to integrate discussions on student well-being and educational equity in their teaching, emphasizing the need for holistic learning environments.
- **P2's Challenge and Adaptation:** P2 struggled with reconciling the rigid academic culture observed in Korea with their own student-centered approach. However, they found inspiration in the balance between structured content and cultural integration, leading them to incorporate Korean kinematic toys in Physics lessons as a bridge between science and cultural relevance.
- **P3's Transformation:** Initially fascinated by Korea's technological integration in classrooms, P3 shifted from admiration to practical application. Inspired by Korean teaching methods, they successfully adapted the Makey-Makey project into undergraduate STEM instruction, fostering innovation and hands-on learning.
- **P4's Engagement:** Observing Korean elementary classrooms highlighted the power of structured yet engaging learning. P4 adapted South Korean instructional strategies into an after-school STEM program, leading to increased student engagement and enthusiasm for science.
- **T1's Cultural Expansion:** T1's perspective evolved through a water cycle lesson, where they encouraged students to compare global perspectives. This strategy deepened students' understanding of science in cultural contexts, enhancing their engagement and appreciation for diverse knowledge systems.
- **T2's Classroom Transformation:** Initially focused on differences, T2 embraced inclusivity by introducing students to games from the US, Mexico, and Korea. This small but meaningful step fostered cultural awareness and appreciation, creating a more inclusive learning environment.

### **Culturally Responsive Instructions**

The project significantly enhanced the participants' skills in culturally responsive instruction as a cumulative product of the project:

- **P1** engaged students in discussions about language policy and bilingualism, integrating personal struggles with Korean language learning into classroom discussions.
- **P2** incorporated handmade kinematic toys from Korea to teach physics concepts, bridging cultural and scientific learning.
- **P3** adapted Makey Makey into undergraduate STEM education, promoting hands-on learning inspired by Korean teaching methods.
- **P4** implemented culturally responsive instructional strategies from Korea into an after-school STEM program.
- **T1** enhanced a water cycle lesson by incorporating cross-cultural comparisons.
- **T2** introduced culturally relevant games to foster inclusivity and cultural appreciation.

### **Discussion**

The SMILE in Korea project demonstrated a meaningful impact on the participants' cultural sensitivity and instructional practices, even within the limitations of a small sample size. Data analysis revealed that while self-efficacy, personal interest, and cultural competence showed modest or mixed changes, cultural sensitivity significantly increased, as confirmed by the Wilcoxon signed-rank test. Given the small number of participants ( $n = 5$  with complete data), this nonparametric test was more appropriate than the paired-samples t-test, which assumes normality and greater statistical power. Reporting both tests provides transparency, but the Wilcoxon results offer the stronger evidence base for interpreting outcomes.

Importantly, the participants' growth in cultural sensitivity aligns with theories that sustained exposure to diverse cultural contexts enhances intercultural responsiveness. Consistent with research on international exchange programs (Thin, 2025), the participants reported a deeper appreciation for cultural identity and its central role in education. While the quantitative findings are not generalizable due to the small and purposefully recruited sample, they do provide valuable insight into how professional development programs like SMILE can influence educators' perspectives and practices.

Qualitative observations reinforced these trends. Initially, the participants highlighted the competitive nature and heavy emphasis on standardized testing in the Korean education system. However, their post-project reflections revealed a more nuanced understanding, including the recognition that education systems must balance rigor with student well-being. This transformation in perspective reflects key elements of transformative learning (Briscoe & Robino, 2025).

The project also shaped the participants' instructional practices. Educators began integrating culturally responsive teaching strategies, using culturally relevant examples

and inclusive practices to enrich their classrooms. These findings echo prior studies that highlight the impact of international teaching experiences on pedagogical adaptability and cultural responsiveness (Thin, 2025).

A central takeaway was the participants' recognition of culturally responsive instruction as critical for promoting equity and inclusion. Many expressed a commitment to further developing culturally relevant pedagogy and designing lessons that connect students' cultural identities with content learning. These findings are consistent with previous research showing that teachers' culturally responsive classroom beliefs and practices are associated with their self-efficacy and instructional commitment to meeting the needs of culturally diverse students (Özüdoğru, 2022). This shift aligns with broader educational initiatives that promote inclusivity in diverse classrooms (Briscoe & Robino, 2025).

Finally, the project's structure – emphasizing continuous reflection through monthly virtual meetings and post-project evaluations – helped foster a sustained learning community. This collaborative engagement reinforced professional growth and supports the idea that long-term, reflective professional development is essential for cultivating durable gains in cultural competence (Briscoe & Robino, 2025).

## **Conclusion**

The SMILE in Korea project provided a transformative professional learning experience that expanded the participants' perspectives on global education and enhanced their culturally responsive teaching practices. Through exposure to diverse cultural contexts, the participants became more reflective, equity-driven educators capable of fostering inclusive classrooms. Although the small, purposefully selected sample limits the generalizability of the findings, the integration of both qualitative insights and nonparametric analysis suggests meaningful growth, particularly in cultural sensitivity. This underscores the promise of international and immersive programs in promoting culturally responsive pedagogy.

### ***Implication for policy and teacher education***

The findings from the SMILE in Korea project offer critical insights for shaping education policies and teacher preparation, particularly in multicultural education contexts. Despite the study's limited scope, the results highlight actionable strategies to strengthen culturally responsive teaching and professional development.

Policymakers should create mentorship frameworks that pair experienced educators with novices in multicultural settings. Such programs can encourage peer learning, provide practical strategies, and build confidence in working with culturally and linguistically diverse (CLD) students. Programs like the Howard Hughes Medical Institute's Gilliam Program illustrate how mentorship rooted in cultural responsiveness enhances trainee success (Butts et al., 2022).

Professional development should prioritize immersive experiences such as international exchanges, cultural immersion, and collaboration with diverse educators. These experiences can strengthen cultural competence, foster self-reflection, and support pedagogical adaptability. Research shows that such cultural immersion opportunities can transform educators' professional identities and improve connections with students (Nguyen, 2021).

Teacher education programs should integrate coursework on sociocultural influences, culturally relevant strategies, and inclusive instructional design. A strong foundation in culturally responsive pedagogy ensures future teachers are equipped to engage diverse classrooms effectively. Literature reviews highlight that sustained, high-quality professional development is key to preparing teachers for equity-focused teaching (Sleeter, 2018).

Evaluation systems should recognize and reward culturally responsive practices. Criteria should include adapting instruction to students' cultural needs, fostering inclusive environments, and ongoing self-reflection. Such evaluation frameworks encourage teachers to continuously strengthen their cultural competence.

Supporting professional learning communities that connect educators across diverse contexts can facilitate sharing of best practices and resources. Initiatives such as the Puget Sound Educational Service District's mentoring program for educators of color demonstrate how structured networks can advance diversity-aligned support (PSESD, 2020).

Long-term monitoring and research on the impact of culturally responsive practices are necessary to refine policies and training. Collecting evidence over time ensures that strategies remain relevant and effective in improving outcomes for diverse student populations.

By prioritizing these approaches, education systems can create more equitable and inclusive learning environments. While limited in scope, the SMILE in Korea project demonstrates how immersive, culturally rich professional development can catalyze meaningful growth in educators' cultural sensitivity and responsiveness—insights that can inform both policy and practice.

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# Ljetni multikulturalni institut za povezano obrazovanje (SMILE) u Koreji: unaprjeđenje kulturne kompetencije i afiniteta nastavnika

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## Sažetak

*U ovoj studiji istražuje se projekt Ljetnoga multikulturalnog instituta za povezano obrazovanje (SMILE), strukturirani program studijskoga boravka u inozemstvu usmjeren na unaprjeđenje kulturne kompetencije nastavnika u raznolikim učionicama. Šest sudionika — četiri profesora i dvije učiteljice razredne nastave — sudjelovalo je u uranjajućim iskustvima u Koreji, s naglaskom na jezik, kulturu i obrazovanje. Tijekom pripreme prije odlaska, interakcije tijekom boravka te refleksije nakon programa, surađivali su s korejskim nastavnicima i učenicima, potičući kulturno responzivno poučavanje. Rezultati pokazuju da je projekt SMILE značajno unaprijedio kulturnu kompetenciju sudionika, njihovu samoučinkovitost i sposobnost integriranja kulturno relevantnih sadržaja, promičući inkluzivnost. Ova studija naglašava transformativni učinak međunarodnih razmjena na profesionalni identitet nastavnika te ističe važnost kulturno responzivne pedagogije u rješavanju obrazovnih nejednakosti. Rezultati imaju šire implikacije za obrazovanje nastavnika i obrazovne politike, sugerirajući da strukturirani okviri za razvoj kulturne kompetencije mogu poboljšati učinkovitost poučavanja u raznolikim učionicama diljem svijeta.*

**Ključne riječi:** obrazovanje nastavnika; kulturna kompetencija; kulturno responzivno poučavanje; raznolike učeničke populacije; međunarodna razmjena; međukulturna suradnja

## Uvod

U današnjem sve raznolikijem obrazovnom okružju institucije se suočavaju sa značajnim izazovom pružanja učinkovite nastave učenicima različitih kulturnih i jezičnih pozadina. Nastavnici se često suočavaju s poteškoćama u adekvatnom integriranju jezičnih i kulturnih identiteta svojih učenika u nastavne metodologije zbog nedostatka specijalizirane edukacije (Bencze i Hodson, 2014). Ovaj nedostatak pripreme ne samo da narušava samopouzdanje nastavnika u radu s kulturno i jezično raznolikim (CLD)

učenici, već pridonosi i trajnim razlikama u postignućima između većinskih i manjinskih skupina učenika (National Research Council, 2012; Osborne i sur., 2003).

Projekt SMILE posebno je važan jer odgovara na ove ključne nedostatke u okviru obrazovanja nastavnika usredotočujući se na profesionalni identitet nastavnika i njihova uvjerenja o kulturno responzivnom i pravednom poučavanju. Istraživanja ističu da uvjerenja nastavnika o raznolikosti značajno utječu na njihovu samoeфикаsnost i profesionalni identitet, što potom oblikuje njihove nastavne prakse (Gay, 2018; Mensah, 2019). Razvijanjem kulturne kompetencije — definirane kao sposobnost prepoznavanja, poštivanja i učinkovite integracije raznolikih kulturnih pozadina učenika u proces učenja — nastavnici mogu stvarati inkluzivna okružja koja značajno unaprjeđuju akademske ishode CLD učenika (Villegas i Lucas, 2002).

Smanjenje razlika u postignućima između većinskih i manjinskih učenika jedan je od ključnih ciljeva obrazovnih praktičara i kreatora politika (Lambert i Ariza, 2008). Projekt SMILE odgovara na tu potrebu nudeći ciljanu edukaciju usmjerenu na unaprjeđenje kulturne kompetencije nastavnika prirodoslovlja, njihovih metodičkih vještina i nastavnih strategija prikladnih za raznolike učionice. Fokusom na međukulturno učenje i primjenu istraživanjem utemeljenih praksi, projekt nastoji transformirati obrazovni sustav prema pravednijem i inkluzivnijem modelu poučavanja prirodoslovlja.

### ***Pregled literature***

Razvoj učinkovite pedagoške kompetencije i nastavnih vještina u multikulturalnim okružjima zahtijeva nijansirano razumijevanje kulturne responzivnosti koje nadilazi puku izloženost različitim kulturama. Kulturno responzivno poučavanje (Culturally Responsive Teaching – CRT), kako ga opisuje Gay (2010), naglašava potrebu da nastavnici utkaju kulturne pozadine učenika u svoje nastavne strategije, čime potiču smisleno i utjecajno učenje. Međukulturno učenje ključno je za razvoj kulturne kompetencije nastavnika jer obogaćuje njihovu svijest o raznolikim jezičnim, društvenim i kognitivnim perspektivama (Ladson-Billings, 1995).

Uvjerenja nastavnika ključna su za oblikovanje nastavnih postupaka te značajno utječu na pristupe raznolikosti i uključivanju učenika (Fives i Gill, 2015). Istraživanja pokazuju da nastavnici koji sudjeluju u međukulturnim iskustvima ne samo da proširuju svoju kulturnu svijest, već se i kritički osvrću na vlastite implicitne pristranosti i pretpostavke (Villegas i Lucas, 2002). Takvi reflektivni procesi ključni su za razvoj inkluzivnih nastavnih strategija prilagođenih različitim potrebama učenika.

Iz sociokulturne perspektive (Vygotsky, 1978), učenje je inherentno društveni konstrukt koji se osnažuje interakcijama s drugima, što međukulturna iskustva čini iznimno vrijednima za nastavnike. Sudjelovanje u međukulturnom učenju podrazumijeva usvajanje ili prilagodbu znanja i pedagoških tehnika iz različitih nacionalnih konteksta, što može potaknuti dublje razumijevanje različitih jezičnih, kulturnih i obrazovnih okvira koji oblikuju poučavanje i učenje (Tagle, 2021). Istraživanja pokazuju da i budući i zaposleni nastavnici nakon takvih iskustava iskazuju povećano razumijevanje i interes za različite kulture (Huang, 2013; Roane, 2008; Sérriere i Mason, 2008).

Nadalje, stručno usavršavanje prilagođeno multikulturalnim kontekstima pokazalo je značajna poboljšanja u nastavnoj učinkovitosti i učeničkim ishodima. Dokazi ukazuju na to da nastavnici koji sudjeluju u strukturiranim međunarodnim programima razmjene stječu veće samopouzdanje u primjeni kulturno responzivnih strategija poučavanja, što rezultira povećanom angažiranošću učenika i boljim akademskim postignućima (LaFave i sur., 2017; Woo i sur., 2010). Suradnički međunarodni modeli poučavanja, poput uparivanja američkih i južnokorejskih nastavničkih kandidata u zajedničkom osmišljavanju i izvođenju nastave, pokazali su slične pozitivne ishode (Yoon i sur., 2011; Yoon i Han, 2015), dodatno potvrđujući važnost kulturno relevantne pedagogije (Ladson-Billings, 1995) u poticanju uspjeha učenika.

Štoviše, istraživanja međunarodnih programa razmjene pokazuju da nastavnici koji primjenjuju proširene perspektive stečene u međukulturnim iskustvima u svojoj nastavnoj praksi postižu veća učenička postignuća i razvijaju veću samoefikasnost (Woo i sur., 2010). To je u skladu s istraživanjima o formiranju profesionalnoga identiteta nastavnika, prema kojima osobne pozadine, iskustva i uvjerenja nastavnika značajno oblikuju njihove nastavne metode i način interakcije s učenicima (Beauchamp i Thomas, 2009).

### ***Svrha istraživanja***

Projekt SMILE (Ljetni multikulturalni institut za povezano obrazovanje) razvijen je kao odgovor na hitnu potrebu za unaprjeđenim mogućnostima stručnoga usavršavanja za nastavnike koji rade s kulturno i jezično raznolikim (CLD) učenicima. Utemeljen na načelima kulturno responzivnoga poučavanja (CRT) (Gay, 2010) i sociokulturnoga okvira učenja (Vygotsky, 1978), projekt ima za cilj pružiti nastavnicima alate i strategije potrebne za stvaranje inkluzivnih i pravednih okružja za učenje. Specifične svrhe ovoga istraživanja uključuju:

1. Unaprjeđenje kulturne kompetencije: procijeniti u kojoj mjeri sudjelovanje u projektu SMILE unaprjeđuje kulturnu kompetenciju nastavnika, osposobljavajući ih znanjem i vještinama potrebnima za učinkovito poučavanje raznolikih skupina učenika.
2. Jačanje afiniteta i samoefikasnosti: ispitati kako projekt potiče afinitet nastavnika prema radu s CLD učenicima te njihovu samoefikasnost u primjeni inkluzivnih nastavnih strategija.
3. Oblikovanje percepcija međunarodnoga obrazovanja: istražiti kako sudjelovanje u južnokorejskim učionicama i obrazovnim kontekstima utječe na percepcije sudionika o međunarodnim obrazovnim sustavima te na moguće proširenje njihovih nastavnih filozofija i pristupa.
4. Unaprjeđenje nastavnih strategija: utvrditi na koji način projekt unaprjeđuje sposobnost sudionika da osmišljavaju i provode kulturno responzivne nastavne strategije koje odgovaraju potrebama raznolikih učenika, osiguravajući svim učenicima jednake prilike za uspjeh.

## **Istraživačka pitanja**

Projekt SMILE nastoji odgovoriti na četiri ključna istraživačka pitanja:

1. U kojoj mjeri sudjelovanje u projektu SMILE unaprjeđuje kulturnu kompetenciju nastavnika te njihovu sposobnost prepoznavanja i integriranja različitih kulturnih pozadina u nastavnu praksu?
2. Kako projekt utječe na afinitet sudionika prema radu s kulturno i jezično raznolikim (CLD) učenicima te kakav utjecaj to ima na njihovu samoefikasnost u provedbi inkluzivnih nastavnih strategija?
3. Na koji način sudjelovanje u južnokorejskim učionicama i obrazovnim kontekstima oblikuje percepcije i razumijevanje globalnih obrazovnih sustava te kako to utječe na njihove nastavne filozofije?
4. U kojoj mjeri projekt SMILE unaprjeđuje sposobnost sudionika da osmisle i provedu kulturno responzivne nastavne strategije koje učinkovito podržavaju raznolike učenike u njihovim učionicama?

## **Metodologija**

U ovom istraživanju primijenjen je konvergentni mješoviti istraživački dizajn u kojem su kvantitativni i kvalitativni podaci prikupljeni paralelno, analizirani odvojeno te potom integrirani radi sveobuhvatnoga razumijevanja učinka projekta. Mješoviti pristup primijenjen je i u prikupljanju i u analizi podataka. Kvantitativne mjere, poput anketa prije i nakon projekta, procjenjivale su samoefikasnost, kulturnu kompetenciju i stavove sudionika, dok su kvalitativne metode — intervjui, reflektivni dnevници i nastavni planovi — bilježile njihova iskustva i pedagoški razvoj. Kombinacijom pristupa istraživanje je pružilo mjerljive rezultate i kontekstualizirane uvide u razvoj kulturno responzivnih praksi kroz projekt SMILE.

S obzirom na mali uzorak ( $n = 6$ ), statističke analize provedene su s oprezom. Za usporedbu rezultata anketa prije i nakon projekta primijenjen je t-test za zavisne uzorke. Međutim, zbog otežanoga zadovoljenja pretpostavke normalnosti kod malih uzoraka, korišten je i Wilcoxonov test predznaka kao neparametrijska alternativa (Field, 2018). Ovakav pristup omogućio je provjeru dosljednosti uočenih promjena primjenom parametrijskih i neparametrijskih metode te osigurao veću transparentnost, uz priznanje ograničenja parametrijskih testova u istraživanjima s malim uzorcima.

## **Sudionici istraživanja**

U istraživanju je sudjelovalo šest sudionika — četiri sveučilišna profesora i dva učitelja u službi — koji su regrutirani posebno za projekt SMILE putem ciljanoga poziva. Pozvani su nastavnici s izraženim interesom za kulturno responzivnu pedagogiju i prethodnim iskustvom rada s kulturno i jezično raznolikim (CLD) učenicima. Mali uzorak odražava usmjerenost projekta na dubinsko stručno usavršavanje odabrane skupine, ali istodobno ograničava mogućnost generalizacije rezultata. Cilj istraživanja

stoga je pružiti bogate, kontekstualizirane uvide u razvoj i prilagodbu kulturno responzivnih praksi u korejskom obrazovnom kontekstu. Sudionici (četiri žene i dvojica muškarca) predstavljali su različite discipline, godine iskustva te jezične i kulturne pozadine, stvarajući suradničko okružje za učenje i razmjenu perspektiva.

Sveučilišni profesori:

- **P1** imao je više od 30 godina iskustva u obrazovanju učitelja razredne nastave, specijaliziran za usvajanje drugoga jezika i ESL/dvojezično obrazovanje.
- **P2** je doktor astronomije s više od 10 godina iskustva u visokom obrazovanju, poučavao je fiziku buduće nastavnike.
- **P3** specijalizirala se za obrazovanje iz matematike u osnovnoj i srednjoj školi, s naglaskom na primjenu matematike u stvarnim situacijama.
- **P4** je statističar i istraživački stručnjak s iskustvom u poučavanju kvantitativnih metoda i analize podataka u obrazovanju.

Učitelji u službi:

- **T1** je učitelj prirodoslovlja i društvenih predmeta u osnovnoj školi sa šest godina iskustva, s naglaskom na rad s CLD učenicima i diferenciranu nastavu.
  - **T2** je specijalist za čitanje s četiri godine iskustva, radio je s učenicima iz višejezičnih sredina na razvoju pismenosti.

Ova mala, ali raznolika skupina omogućila je intenzivno testiranje i usavršavanje kulturno responzivnih nastavnih praksi. Njihovo aktivno sudjelovanje u projektu SMILE doprinijelo je razvoju praktičnih alata i refleksivnih strategija koje, iako kontekstualno specifične, nude prenosive uvide za širu primjenu u multikulturalnom obrazovanju. Podatci o sudionicima prikazani su u Tablici 1.

Tablica 1  
Pozadina sudionika

|    | Spol     | Iskustvo  | Pozicija  | Jezik               |
|----|----------|-----------|---|---------------------|
| P1 | Iskustvo | 30 godina | profesor dvojezičnoga obrazovanja               | španjolski/engleski |
| P2 | Pozicija | 10 godina | profesorica fizike i astronomije                | hindi/engleski      |
| P3 | Jezik    | 10 godina | profesorica matematike (obrazovanje nastavnika) | engleski            |
| P4 | Ž        | 4 godine  | profesorica statistike                          | engleski            |
| T1 | M        | 6 godine  | učitelj prirodoslovlja i društvenih             | engleski/korejski   |
| T2 | Ž        | 4 godine  | učiteljica čitanja                              | engleski/španjolski |

### **Faze projekta**

Projekt SMILE u Koreji bio je strukturiran u tri faze, pri čemu je svaka uključivala kvalitativne metode za prikupljanje osobnih narativa nastavnika, refleksija i studija slučaja njihovih iskustava.

### *Faza 1: Orijentacija prije polaska*

Sudionici su prošli petodnevnu pripremu u SAD-u, koja ih je pripremila za intenzivno iskustvo u Koreji. Ova faza uključivala je:

- Radionice o korejskoj kulturi, jeziku i obrazovanju, koje je vodio stručnjak za korejske studije.
- Interaktivne rasprave o kulturološki prilagođenoj nastavi, pri čemu su sudionici reflektirali svoja prethodna iskustva rada s učenicima iz različitih kulturnih i jezičnih sredina (CLD) te postavljali osobne ciljeve učenja.
- Analizu studija slučaja korejskih učionica, što je sudionicima omogućilo usporedbu nastavnih strategija korištenih u Koreji i SAD-u.
- Intervjue prije projekta, u kojima su sudionici dijelili svoja početna uvjerenja i očekivanja u vezi s korejskim obrazovanjem i međukulturalnom nastavom.

### *Faza 2: SMILE u Koreji*

Četverotjedni ljetni institut održan je na prestižnom privatnom sveučilištu u Seulu, poznatom po izvrsnosti u obrazovanju i istraživanju. Ova faza uključivala je kvalitativno prikupljanje podataka putem promatranja, intervjuja i refleksivnih dnevnika. Ključne aktivnosti uključivale su:

- Poučavanje korejskoga jezika i kulture: sudionici su sudjelovali u svakodnevnom šestosatnim sesijama učenja jezika i kulture, koje je vodio instruktor iz sveučilišnog centra za korejski jezik. Napredak u učenju i kulturna zapažanja bilježili su u tjednim refleksivnim dnevnicima.
- Posjete školama i promatranje učionica: sudionici su posjećivali osnovne, srednje i visoke škole u Seulu, promatrali nastavne prakse i sudjelovali u raspravama s korejskim edukatorima. Terenske bilješke i refleksije nakon posjeta prikupljane su kako bi se zabilježila njihova evoluirajuća percepcija korejske pedagogije.
- Suradnja s korejskim edukatorima: svaki sudionik bio je spojen korejskim nastavnikom ili studentom diplomskoga studija radi rasprava i zajedničkoga osmišljavanja nastavnih jedinica. Ove interakcije bilježene su polustrukturiranim intervjuima fokusiranim na međukulturalne nastavne strategije.
- Obrazovni seminari i rasprave o politikama: stručnjaci iz Korejskoga ministarstva obrazovanja i istraživačkih institucija vodili su sesije o aktualnim pitanjima korejskoga obrazovanja. Sudionici su sudjelovali u grupnim raspravama i analitičkim refleksijama, kasnije doprinoseći svojim akcijskim planovima nakon projekta.
- Kulturni izleti i angažman u zajednici: posjete muzejima, povijesnim lokalitetima i zajedničkim centrima bile su osmišljene kako bi produbile razumijevanje korejske baštine. Putem etnografske terenske bilješke reflektirali su kako kulturna povijest oblikuje obrazovanje i identitet.

### *Faza 3: Aktivnosti praćenja*

Po povratku u SAD, sudionici su se uključili u proces refleksije i diseminacije koji je trajao cijeli semestar, uključujući:

- Intervjue nakon projekta: sudionici su dijelili kako je iskustvo oblikovalo njihove nastavne prakse i stavove prema učenicima iz CLD sredina.

- Online refleksivne grupe: mjesečni virtualni sastanci olakšavali su rasprave o integraciji korejskih obrazovnih strategija u američke učionice.
- Projekti akcijskoga istraživanja: sudionici su razvili kulturološki prilagođene planove lekcija i implementirali ih u svojim učionicama, bilježeći angažman učenika i ishode učenja.
- Prezentacije na konferencijama i publikacije: nekoliko sudionika predstavilo je svoja otkrića na obrazovnim konferencijama, doprinoseći širem diskursu o međukulturalnom obrazovanju nastavnika.

### ***Dizajn kurikula i nastavnih okvira***

Kurikul SMILE projekta u Koreji bio je dizajniran oko dvije glavne komponente: (1) učenje o korejskom jeziku, povijesti, kulturi i obrazovanju te (2) razvoj i dijeljenje kulturološki prilagođenih lekcija. U okviru programa, edukatori su sudjelovali u interdisciplinarnim aktivnostima usmjerenima na produbljivanje razumijevanja različitih aspekata korejske kulture, uključujući politiku, umjetnost, glazbu, ples, hranu, odjeću, stanovanje i geografiju. Kurikul se temeljio na sljedećim ključnim principima:

- Integracija kulturnoga učenja: sudionici su bili uključeni u strukturirane aktivnosti koje povezuju koncepte lekcija s elementima korejske kulture. Ovaj pristup naglašavao je važnost kulturološki relevantnoga sadržaja u obrazovanju, omogućujući sudionicima da vide kako kulturni konteksti oblikuju nastavu i učenje.
- Korištenje 5E ciklusa učenja: kurikul je strukturiran prema 5E nastavnom modelu—engagement (angažman), exploration (istraživanje), explanation (objašnjenje), extension (proširenje) i evaluation (evaluacija)—koji je poznat po poboljšanju postignuća i stavova učenika (Cakir, 2017; Uyanik, 2016). Ovaj okvir zasnovan na istraživanju poticao je sudionike na:
  - Angažiranje: istraživanje prirodnih pojava povezanih s korejskom kulturom.
  - Istraživanje: sudjelovanje u praktičnim istraživanjima koje je vodio edukator koji pružaju relevantne resurse i smjernice.
  - Objašnjavanje: dijelne zapažanja i raspravljanje o konceptima, uvodeći odgovarajuću znanstvenu i kulturnu terminologiju.
  - Proširenje: primjena novostečenoga znanja u novim kontekstima, razvijajući sposobnost prijenosa vještina u različitim kulturnim i obrazovnim okvirima.
  - Evaluaciju: kontinuirana procjena razumijevanja i napretka, osiguravajući postizanje ciljeva učenja.
- Kulturološki prilagođena nastava: kurikul je uključivao elemente kulturološki prilagođene nastave (CRT), naglašavajući povezanost kulturnoga porijekla učenika i njihovih iskustava u učenju (Gay, 2010). Tijekom bliske suradnje s korejskim nastavnicima i studentima u predprofesionalnoj i profesionalnoj praksi, sudionici su stekli vrijedne kulturne uvide koji su oblikovali razvoj kulturološki prilagođenih nastavnih materijala.

- Usklađenost s modelom učenja Science, Technology, and Society (STS): Aktivnosti u skladu s STS modelom učenja poticale su sudionike da djeluju kao istraživači, istražujući stvarne ekološke probleme i razvijajući praktična rješenja. Ovaj pristup uključivao je aktivnosti usmjerene na učenika, poput projekata u zajednici, natjecanja u igrama uloga, projekata dokumentarnih filmova, školskih eksperimenata i grupnih rasprava (Petty i Narayan, 2012; NRC, 2012; Yoon i Ko, 2013).

Primjer kulturološki prilagođene nastavne jedinice iz znanosti koristeći 5E ciklus učenja prikazan je u Tablici 2, s multikulturalnim komponentama istaknutima kurzivom (Yoon i Martin, 2017).

Kako bi razvili kulturološki prilagođenu nastavu kao završni rezultat projekta, sudionici su aktivno sudjelovali u pažljivo planiranom i promišljeno osmišljenom SMILE projektu u Koreji. Tijekom boravka u Koreji, dnevni raspored uključivao je razne aktivnosti osmišljene tako da urone sudionike u korejski jezik, povijest i kulturu. Jutra su bila posvećena prezentacijama korejskih stručnjaka koji su sudionicima pružali vrijedne uvide i poticali rasprave o različitim aspektima Koreje. Popodneva su bila ispunjena interaktivnim izložbama i aktivnostima na otvorenom, pružajući praktična iskustva izvan učionice. Specifične aktivnosti uključivale su posjete povijesnim lokalitetima, muzejima umjetnosti i glazbe, školama, Demilitariziranoj zoni (DMZ), modernim koncertima i korejskim tržnicama hrane. Slika 1 prikazuje njihovo sudjelovanje u korejskom kaligrafskom radu u palači Gyeongbok.

Slika 1.

Tablica 2

*Primjer kulturološki prilagođene aktivnosti iz znanosti*

**Razred: 2.**

**ema / Pitanje: Što je kamen?**

TEKS — Texas Essential Knowledge and Skills [državni kurikulum]

(7) Zemlja i svemir – Učenik će biti informiran da je kamen temeljni materijal Zemlje.

(A) Očekuje se da učenik promatra i opisuje kamen prema teksturi i boji.

**Ciljevi:**

1 Učenici će otkriti karakteristike kamenja i izraditi tablicu kamenja iz grupe uzoraka.

2 Učenici će istražiti kako i zašto se kamen razlikuje diljem svijeta.

**Materijali:**

Razni uzorci kamenja, vrećice (ziplock) – velike i male, novine

| Faze 5E modela  | Pitanja   |
|---|---|
| Engage (Angažman)<br>Postavljati pitanja o predmetima, organizmima i događajima u njihovoj okolini. | 1 Gdje ste vidjeli kamenje u svojem gradu? (Znanje)<br>2 Opisati teksturu i boju kamenja. (Razumijevanje)<br><i>Nastavnik pokazuje učenicima vrećicu s različitim kamenjem i traži da odrede gdje se takvo kamenje može naći.</i> |

|  |   |
|--|---|
| <p>Explore (Istraživanje)<br/>Postavljati pitanja kako bi prikupili dokaze za odgovor na postavljeno pitanje.</p>  | <p>3 Zatražite od učenika da odaberu jedan kamen iz vrećice i bez gledanja opišu ga razredu.<br/>4 Koje karakteristike možete izdvojiti za svoj kamen? (Analiza)<br/>5 U grupama, usporedite i kontrastirajte svoj kamen s kamenjem svojih kolega. (Analiza)<br/><i>Učenici će ići na mini terensku nastavu na otvorenom i pronaći jedinstveni kamen koji će donijeti u učionicu. Zatim će se spojiti u male grupe i uspoređivati kamenje prema obliku, težini, veličini, boji, teksturi i ostalim detaljima koji čine kamen jedinstvenim.</i></p>  |
| <p>Explain (Objašnjenje)<br/>Postavljati pitanja kako bi koristili novo znanje i promatrane dokaze za konstrukciju znanstvenih objašnjenja i odgovora na inicijalna pitanja.</p> | <p>6. Koje su uobičajene karakteristike koje ste pronašli na popisu? (Sinteza)<br/>7 Kao razred, izradite popis zajedničkih karakteristika kamenja koje su učenici pronašli. Učenici će smjestiti svoj kamen u popis karakteristika prema njegovim atributima te dijeliti i povezivati podatke, informacije i opažanja kako bi konstruirali zajedničke karakteristike kamenja.</p>  |
| <p>Elaborate (Proširenje)<br/>Postavljati pitanja kako bi primijenili novo znanje na nove probleme.</p>  | <p>8 Što čini razlike među kamenjem? (Analiza)<br/>9 Kako vremenske prilike različito utječu na svako od ovih kamena? (Primjena)<br/><i>Ovdje se može uvesti pojam vremenskih utjecaja (weathering), objašnjavajući kako on djeluje na svaki tip kamenja.</i></p>   |
| <p><b>Dodavanje multikulturalne aktivnosti</b></p>   |   |
| <p>Evaluate (Evaluacija)<br/>Postavljati pitanja za procjenu razvoja razumijevanja i istraživačkih vještina.</p>   | <p>1 Koje se vrste kamenja nalaze u Koreji? (Ovo je primjer jedne zemlje koja se može koristiti. Ako je moguće, učenici mogu istražiti kamenje iz više zemalja.)<br/><i>Učenici će „istražiti“ kamenje u Seorak Mountain Cultural Science Parku i usporediti ga s drugim poznatim kamenjem iz Amerike i vlastitim kamenjem.</i></p> <ul style="list-style-type: none"> <li>• Promatrati razgovore u malim grupama prilikom uspoređivanja i kontrasta njihovoga kamenja.</li> <li>• Procijeniti zajedničke i jedinstvene karakteristike kamenja koje su razvili učenici.</li> <li>• Procijeniti točnost i vrijednost informacija zapisanih u njihovim znanstvenim dnevnicima. Dnevnik će uključivati sve karakteristike kamenja koje su promatrali i objašnjenje kako se razlikuje od kamenja u Koreji (ili drugim zemljama svijeta).</li> </ul> |

U večernjim satima sudionici su imali vrijeme za online čitanje, istraživanje ili osobne konzultacije s projektnim timom, korejskim stručnjacima i lokalnim partnerima.

Tablica 3  
Vremenski okvir projekta i ciljevi

| Cilj  | Mjesto | Zadaci  |
|---|--------|---|
| <p>1. Suradnja između institucija visokoga obrazovanja (IHE) u SAD-u i Koreji</p> | SAD    | <p>1.1 Projektni tim (voditelj projekta i lokalni koordinator) te drugi ključni djelatnici na partnerskom sveučilištu analizirali su rezultate prethodnih studija i razvili obrazovne materijale, dizajn istraživanja i alate za procjenu projekta. Projektni tim je potom ažurirao obrazovne materijale, dizajn istraživanja i alate za procjenu projekta.</p> |
|   | SAD    | <p>1.2 Projektni tim je regrutirao i odabrao šest edukatora (4 profesora i 2 nastavnika).</p>   |

| Cilj                                     | Mjesto | Zadaci   |
|--|--------|--|
| 2. Razvoj kurikula (korejski materijali) | SAD    | 2.1 Projektni tim održao je petodnevnu pripremu prije polaska sa sudionicima. Sudionici su na početku projekta polagali predtestove i ispunjavali ankete kako bi dokumentirali svoje znanje i percepcije o različitim temama vezanim uz Koreju.  |
|  | Koreja | 2.2 Sudionici su putovali u Koreju i sudjelovali u četverotjednom programu jezika i kulture.   |
|  | SAD    | 2.3 Sudionici su se vratili u SAD i sudjelovali u postradionici evaluacije. Podijelili su svoja iskustva iz Koreje i sugerirali kako im je iskustvo pomoglo u razvoju kulturološki prilagođene nastave. Odgovarali su na anketna pitanja na kraju projekta u inozemstvu kako bi dokumentirali utjecaj projekta.  |
|  | SAD    | 2.4 Sudionici (nastavnici) vratili su se na svoja sveučilišta i škole kako bi podijelili svoje iskustvo s kolegama i učenicima.  |
|  | SAD    | 2.5 Sudionici su imali priliku raspravljati o svojem iskustvu u Koreji te razvili i ažurirali svoje nastavne planove prikladne za svoje učionice za semestar.<br>2.6 Projektni tim je analizirao podatke kako bi izmjerio samopouzdanje sudionika u poučavanju i njihove sposobnosti za razvoj vlastitih kulturološki prilagođenih znanstvenih lekcija za svoje učenike. |
| 3. Diseminacija projekta                 | SAD    | 3.1 Projektni tim je ažurirao SMILE u Koreji, uključujući kurikulum i mrežnu stranicu te razvijao rukopise za predaju časopisima i nacionalnim konferencijama.   |
|  | SAD    | 3.2 Projektni tim priprema rukopise za časopise i prezentira rezultate na konferencijama.  |

### **Alati za prikupljanje podataka**

Anketni upitnik afiniteta, koji se sastojao od 25 pitanja, mjerio je samopouzdanje sudionika, osobni interes, identitet i stavove prema poučavanju raznolikih učenika. Prilagođen s postojećih ljestvica—uključujući STEM Identity Scale (Singer i sur., 2020), Personal Interest Scale (Barbera i sur., 2006), Self-Concept of Ability i STEM Value Scales (Else-Quest i sur., 2013) te Attitude Toward STEM Scale (Germann, 1988)—upitnik je pokazao visoku pouzdanost. STEM Affinity Test imao je Cronbachovu alfu veću od 0,80, skala osobnoga interesa kretala se od 0,86 do 0,99 (Barbera i sur., 2008), Self-Concept of Ability približno 0,80, a Task Value iznosio je 0,81 (Else-Quest i sur., 2013). Skala stavova prema STEM-u imala je posebno visoku pouzdanost ( $\alpha = 0,94$ ) (Germann, 1988).

Kulturološki upitnik, koji se sastojao od 29 pitanja, procjenjivao je kulturnu kompetenciju sudionika i njihovu sposobnost poučavanja s kulturnom osjetljivošću prije i nakon projekta. Prilagođen s Patel (2017) i Bucker i sur. (2015), pokazao je visoku unutarnju konzistenciju (Cronbachova alfa = 0,896). Dodatne prilagodbe Cultural Intelligence Scale (CQS) (Gozzoli i Gazzaroli, 2018; Van Dyne i sur., 2012) rezultirale su Cronbachovom alfom od 0,911.

Kako bi se zabilježile evoluirajuće perspektive sudionika i njihov angažman u korejskom obrazovnom sustavu i kulturi, kvalitativne metode uključivale su polustrukturirane intervjuve, refleksivne dnevnikove i razvoj kulturološki prilagođenih nastavnih planova. Intervjui su provedeni prije i nakon programa kako bi se procijenile promjene u kulturnom razumijevanju i profesionalnome razvoju. Ovi intervjui omogućili su sudionicima fleksibilnost da detaljno opišu iskustva, izazove i uvide stečene tijekom projekta.

Sudionici su vodili refleksivne dnevnikove u kojima su dokumentirali svoja iskustva, osobne narative i evoluirajuće stavove prema poučavanju u različitim učionicama. Ovi dnevnikovi pružili su bogate kvalitativne podatke o kulturnom učenju sudionika i pedagoškim prilagodbama.

Kao završnu kvalitativnu mjeru, sudionici su razvili kulturološki prilagođene nastavne planove koji uključuju korejske kulturne i jezične elemente. Ovi planovi nastavnih jedinica analizirani su kako bi se procijenilo koliko učinkovito sudionici integriraju kulturne uvide u svoje nastavne strategije.

Dok su kvantitativne ankete procjenjivale zadovoljstvo, funkcionalnost i kulturnu kompetenciju, kvalitativni alati—intervjui, dnevnikovi i nastavni planovi—bilježili su dublja, transformativna iskustva sudionika. Ovaj kombinirani pristup omogućio je sveobuhvatno razumijevanje utjecaja SMILE projekta na kulturnu kompetenciju i nastavne prakse edukatora.

## Rezultati

### *Test afiniteta*

Test afiniteta mjerio je samopouzdanje i osobni interes sudionika prije i nakon programa. Zbog nepotpunih podataka postankete, P1 je izostavljen, ostavljajući pet sudionika u analizi.

*Paired-samples* t-testovi pokazali su povećanje prosječnoga samopouzdanja ( $s$  3,78,  $SD = 0,29$  na 4,22,  $SD = 0,65$ ) i osobnoga interesa ( $s$  3,76,  $SD = 0,39$  na 4,08,  $SD = 0,70$ ), ali te promjene nisu bile statistički značajne (samopouzdanje:  $t(4) = 1,53$ ,  $p = .21$ ; osobni interes:  $t(4) = 1,24$ ,  $p = .29$ ).

Zbog male veličine uzorka, provedeni su i Wilcoxonovi testovi za povezane uzorke. Rezultati su potvrdili da nema značajnih razlika za samopouzdanje ( $Z = -1,22$ ,  $p = .22$ ) ili osobni interes ( $Z = -0,94$ ,  $p = .35$ ). Ipak, promjene na individualnoj razini bile su značajne. P2 je pokazao najveći porast u oba pokazatelja (samopouzdanje +1,5; osobni interes +0,9), dok je za P3 zabilježen pad u oba područja. T1 i T2 pokazali su umjeren, ali pozitivan rast u oba pokazatelja. Ovi rezultati sugeriraju da je program potaknuo rast kod pojedinih sudionika, iako ukupna poboljšanja nisu bila statistički značajna, vjerojatno zbog ograničenoga uzorka.

### *Kulturni test*

Kulturni test mjerio je kulturnu kompetenciju i kulturnu osjetljivost. *Paired-samples* t-testovi nisu pokazali značajne promjene u kulturnoj kompetenciji ( $s$  4,08,  $SD = 0,18$  na 4,08,  $SD = 0,39$ ;  $t(4) = 0,00$ ,  $p = 1,00$ ), ali su pokazali značajan porast kulturne osjetljivosti ( $s$  3,80,  $SD = 0,24$  na 4,30,  $SD = 0,42$ ;  $t(4) = 3,02$ ,  $p = .04$ ).

Wilcoxonovi testovi dali su dodatnu potvrdu. Kulturna kompetencija ostala je stabilna ( $Z = 0,00$ ,  $p = 1,00$ ), dok je kulturna osjetljivost pokazala značajan pozitivan porast ( $Z = -2,02$ ,  $p = .04$ ). Na individualnoj razini, P3 je pokazao najveći porast kulturne osjetljivosti (+1,2), dok su T1 i T2 također pokazali značajan porast (+0,3 i +0,7).

Sveukupno, rezultati Wilcoxonova testa—primjereniji za mali uzorak—pokazuju da dok je osjećaj kulturne kompetencije sudionika ostao nepromijenjen, njihova kulturna osjetljivost značajno se poboljšala. To upućuje na to da je program povećao svijest i reagiranje sudionika na kulturne razlike, iako sami nisu nužno procijenili da su postali vještiji u upravljanju kulturnom raznolikošću. Tablica 4 pruža detaljan prikaz rezultata pretestova i posttestova.

Tablica 4

Rezultati testa afiniteta i kulturnoga testa

| Sudionik | Samo-pouzdanje (prije) | Samo-pouzdanje (nakon) | Osobni interes (prije) | Osobni interes (nakon) | Kulturna kompetencija (prije) | Kulturna kompetencija (nakon) | Kulturna osjetljivost (prije) | Kulturna osjetljivost (nakon) |
|----------|------------------------|------------------------|------------------------|------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| P2       | 3,5                    | 5,0                    | 3,8                    | 4,7                    | 4,1                           | 4,4                           | 4,2                           | 4,3                           |
| P3       | 4,2                    | 4,0                    | 3,8                    | 3,3                    | 4,0                           | 3,7                           | 3,6                           | 4,8                           |
| P4       | 3,5                    | 3,5                    | 3,8                    | 3,2                    | 3,9                           | 3,9                           | 3,8                           | 3,8                           |
| T1       | 3,9                    | 4,4                    | 3,2                    | 4,2                    | 4,1                           | 4,1                           | 3,8                           | 4,0                           |
| T2       | 3,8                    | 4,2                    | 4,2                    | 5,0                    | 4,3                           | 4,3                           | 3,6                           | 4,6                           |

## Istraživanje o percepciji korejskoga obrazovnog sustava

### Predanketa

Sudionici su prije studije imali različite percepcije korejskoga obrazovnog sustava:

- P1 je smatrao da je korejski obrazovni sustav izvrstan, temeljeći svoje mišljenje na komentarima kolega i istraživanju na internetu. Također je primijetio da sustav ima više sati nastave u odnosu na druge zemlje.
- P2 je uspoređivao korejski sustav s indijskim, ističući sličnosti poput naglaska na uniforme, akademsku konkurenciju i poštovanje prema učiteljima.
- P3 je percipirao korejski sustav kao fokusiran na visoka postignuća, navodeći da je ta usmjerenost podržana angažmanom učitelja, zajednice i roditelja, temeljeći percepciju na anegdotalnim informacijama o nacionalnoj i međunarodnoj uspješnosti.
- P4 je opisao korejski sustav kao intenzivniji i konkurentniji od američkoga, s višim rezultatima na ispitima. Percepcija je bila oblikovana informacijama od korejskih prijatelja i nekim istraživanjem.
- T1 je primijetio da Koreja snažno naglašava obrazovanje, pri čemu se prijemni ispiti smatraju izazovnim. Spomenuo je i da obitelji od ranoga djetinjstva prioritet daju obrazovanju svoje djece.
- T2 je istaknuo da korejski učenici posvećuju značajno vrijeme učenju izvan škole te da roditelji visoko cijene učitelje.

Sudionici su pokazali veliki interes za korejski obrazovni sustav i formirali pozitivnu percepciju, prepoznajući njegove karakteristične značajke: naglasak na uniformama, akademsku konkurenciju, produžene nastavne sate, rigorozne ispite i snažnu posvećenost učenju izvan školskih sati.

### **Postanketa**

Odgovori sudionika nakon projekta pokazali su promjenu u percepciji korejskoga obrazovnog sustava:

- P1 je priznao i pozitivne strane i moguće izazove sustava. Naglasio je važnost smislenih nastavnih jedinica, praktične primjene sadržaja i utjecaja pritiska na učenike. Također je istaknuo ograničenja u implementaciji određenih elemenata korejskoga sustava u američkom kontekstu, osobito u vezi s praćenjem učenika sportaša.
- P2 je dao usporednu analizu korejskoga obrazovnog sustava na temelju svojih promatranja i razgovora s učiteljima i ravnateljima. Istaknuo je sličnosti i razlike između javnih i privatnih škola te usporedio korejski i američki sustav. Predložio je uključivanje rigoroznoga znanstvenog kurikula i sustava čistih učionica iz Koreje, uz prepoznavanje izazova implementacije određenih elemenata u SAD-u.
- P3 je dao uvide u sličnosti i razlike korejskoga i američkoga sustava, ističući mogućnosti za poboljšanja u SAD-u na temelju promatranja korejskoga sustava. Cijenio je učinkovitu primjenu tehnologije i kulturu podrške u korejskim učionicama, uz napomenu o izazovima implementacije određenih aspekata u američkom kontekstu.
- P4 je imao pozitivan stav, pohvalivši sadržaj, upotrebu tehnologije i ponašanje učenika. Izrazio je želju usvojiti različite aspekte korejskoga sustava u SAD-u, uz prepoznavanje specifičnih izazova u američkom kontekstu.
- T1 je priznao pozitivne i negativne strane obaju sustava te izrazio želju uključiti određene korejske pristupe u SAD, uz uvažavanje razlika i izazova.
- T2 je cijenio minimalnu procjenu u korejskom sustavu, ali smatrao je da američki sustav dobro balansira igru i učenje. Predložio je uvođenje čistoće korejskih učionica u SAD-u, ali je izrazio zabrinutost zbog količine učenja izvan škole očekivane od korejskih učenika.

Sudionici su stekli dublje razumijevanje korejskoga sustava, cijenili njegovu akademsku izvrsnost i fokus na postignuća, ali i prepoznali izazove: intenzivne akademske zahtjeve, rigorozne ispite, rano obrazovno usmjerenje i snažnu predanost učenju. Također su uočili razlike između javnoga i privatnoga obrazovanja, pri čemu su privatne škole vrlo konkurentne u pripremi za fakultet i karijeru. Naglašena je važnost kulturološki prilagođene nastave kao ključna lekcija projekta.

## **Putovanja sudionika: transformacije u razumijevanju raznolikih učenika**

Projekt je sudionicima pružio neposredan uvid u kulturološki prilagođeno poučavanje, mijenjajući njihovu perspektivu i pristup nastavi:

- P1: S prvotnoga fokusa na strukturne prednosti sustava, perspektiva se preusmjerila na razumijevanje pritisaka na učenike. To je dovelo do uključivanja tema dobrobiti učenika i obrazovne jednakosti u nastavu.
- P2: Suočio se s izazovom usklađivanja stroge akademske kulture u Koreji sa svojim učenikom usmjerenim pristupom, ali je pronašao inspiraciju u ravnoteži između strukturiranoga sadržaja i kulturne integracije, uključivši korejske kinematičke igračke u nastavu fizike.
- P3: Početno fasciniran tehnološkom integracijom, prešao je od divljenja do praktične primjene, uspješno prilagodivši Makey-Makey projekt u STEM nastavu na preddiplomskom studiju.
- P4: Primijetio moć strukturirane, ali zanimljive nastave u korejskim osnovnim školama, adaptirajući strategije u izvannastavnom STEM programu, povećavajući angažman učenika.
- T1: Perspektiva se proširila putem nastavne jedinice o vodenom ciklusu, potičući usporedbu globalnih perspektiva i produbljujući razumijevanje znanosti u kulturnom kontekstu.
- T2: U početku fokusiran na razlike, uključio je inkluzivnost uvodeći igre iz SAD-a, Meksika i Koreje, potičući kulturnu svijest i inkluzivnost.

## **Kulturološki prilagođena nastava**

Projekt je značajno unaprijedio sudionikove vještine u kulturološki prilagođenoj nastavi:

- P1: Uključio učenike u rasprave o jezičnoj politici i dvojezičnosti, integrirajući osobne izazove u učenju korejskog jezika.
- P2: Koristio ručno izrađene kinematičke igračke iz Koreje za poučavanje fizike, povezujući kulturno i znanstveno učenje.
- P3: Prilagodio Makey Makey za STEM nastavu, promičući praktično učenje inspirirano korejskim metodama.
- P4: Implementirao korejske strategije u izvannastavni STEM program.
- T1: Proširio lekciju o vodenom ciklusu uključujući međukulturne usporedbe.
- T2: Uveo kulturno relevantne igre za poticanje inkluzivnosti i kulturnoga uvažavanja.

## **Diskusija**

Projekt SMILE u Koreji pokazao je značajan utjecaj na kulturnu osjetljivost i nastavne prakse sudionika, čak i unatoč ograničenjima male veličine uzorka. Analiza podataka otkrila je da su, iako su samopouzdanje u vlastite sposobnosti, osobni interes i kulturna

kompetencija pokazali umjerene ili mješovite promjene, kulturna osjetljivost značajno porasla, što je potvrđeno Wilcoxonovim testom potpisanih rangova. S obzirom na mali broj sudionika ( $n = 5$  s potpunim podacima), ovaj neparametrijski test bio je prikladniji od t-testa za uparen uzorak, koji pretpostavlja normalnost i veću statističku snagu. Izvještavanje o obama testovima pruža transparentnost, no rezultati Wilcoxonova testa nude čvršću osnovu za tumačenje ishoda.

Važno je napomenuti da rast sudionika u kulturnoj osjetljivosti odgovara teorijama prema kojima kontinuirano izlaganje različitim kulturnim kontekstima poboljšava međukulturnu osjetljivost. U skladu s istraživanjima o međunarodnim programima razmjene (Thin, 2025), sudionici su izvijestili o dubljem razumijevanju kulturnoga identiteta i njegove središnje uloge u obrazovanju. Iako kvantitativni nalazi nisu generalizabilni zbog maloga i ciljano odabranoga uzorka, oni pružaju vrijedne uvide u to kako programi profesionalnoga razvoja poput SMILE-a mogu utjecati na perspektive i prakse učitelja.

Kvalitativna opažanja dodatno su potvrdila ove trendove. U početku su sudionici isticali konkurentnu prirodu i snažan naglasak na standardizirano testiranje u korejskom obrazovnom sustavu. Međutim, njihova razmišljanja nakon projekta pokazala su nijansiranije razumijevanje, uključujući prepoznavanje potrebe da obrazovni sustavi balansiraju rigoroznost i dobrobit učenika. Ova promjena perspektive odražava ključne elemente transformativnoga učenja (Briscoe i Robino, 2025).

Projekt je također oblikovao nastavne prakse sudionika. Edukatori su počeli integrirati strategije kulturološki prilagođene nastave, koristeći kulturološki relevantne primjere i inkluzivne prakse za obogaćivanje svojih učionica. Ovi nalazi odražavaju prethodne studije koje naglašavaju utjecaj međunarodnoga iskustva poučavanja na pedagošku prilagodljivost i kulturnu osjetljivost (Thin, 2025).

Ključna spoznaja bila je prepoznavanje kulturološki prilagođene nastave kao kritične za promicanje jednakosti i inkluzije. Mnogi sudionici izrazili su predanost daljnjem razvoju kulturološki relevantne pedagogije i osmišljavanju nastavnih jedinica koje povezuju kulturni identitet učenika s učenjem sadržaja. Ovi nalazi korespondiraju s prethodnim istraživanjima koja pokazuju da su vjerovanja i prakse učitelja vezane uz kulturološki prilagođenu nastavu povezane s njihovim samopouzdanjem i predanošću nastavnim obavezama prema učenicima kulturno različitoga podrijetla (Özüdoğru, 2022). Ova promjena u pristupu usklađuje se sa širim obrazovnim inicijativama koje promiču inkluzivnost u raznolikim učionicama (Briscoe i Robino, 2025).

Konačno, struktura projekta—naglašavajući kontinuiranu refleksiju putem mjesečnih virtualnih sastanaka i evaluacije nakon projekta—doprinijela je stvaranju održive zajednice učenja. Ova suradnička uključenost dodatno je ojačala profesionalni razvoj i podržava ideju da je dugoročni, refleksivni profesionalni razvoj ključan za postizanje trajnih poboljšanja u kulturnoj kompetenciji (Briscoe i Robino, 2025).

## Zaključak

Projekt SMILE u Koreji pružio je transformativno iskustvo profesionalnoga učenja koje je proširilo perspektive sudionika o globalnom obrazovanju i unaprijedilo njihove kulturološki prilagođene nastavne prakse. Izlaganjem različitim kulturnim kontekstima, sudionici su postali reflektivniji, orijentirani na jednakost i sposobni poticati inkluzivne učionice. Iako mala, ciljano odabrana skupina ograničava mogućnost generalizacije nalaza, integracija kvalitativnih uvida i neparametrijske analize ukazuje na značajan rast, osobito u području kulturne osjetljivosti. Ovo potvrđuje potencijal međunarodnih i uronjenih programa u promicanju kulturološki prilagođene pedagogije.

### *Implikacije za politiku i obrazovanje učitelja*

Nalazi projekta SMILE u Koreji pružaju ključne uvide za oblikovanje obrazovnih politika i pripremu učitelja, osobito u kontekstu multikulturalnoga obrazovanja. Unatoč ograničenomu opsegu studije, rezultati ističu konkretne strategije za jačanje kulturološki prilagođene nastave i profesionalnoga razvoja.

Donositelji politika trebaju uspostaviti mentorske okvire koji povezuju iskusne učitelje s početnicima u multikulturalnim okružjima. Takvi programi mogu potaknuti vršnjačko učenje, pružiti praktične strategije i izgraditi samopouzdanje u radu s učenicima kulturno i jezično različitoga podrijetla (CLD). Primjeri poput Gilliam Programa Howard Hughes Medical Institute pokazuju kako mentorstvo utemeljeno na kulturološkoj osjetljivosti poboljšava uspjeh polaznika (Butts i sur., 2022).

Profesionalni razvoj trebao bi prioritetno uključivati uronjena iskustva, poput međunarodnih razmjena, kulturne imerzije i suradnje s raznolikim edukatorima. Takva iskustva mogu ojačati kulturnu kompetenciju, potaknuti samorefleksiju i podržati pedagošku prilagodljivost. Istraživanja pokazuju da mogućnosti kulturne imerzije mogu transformirati profesionalni identitet učitelja i poboljšati povezivanje s učenicima (Nguyen, 2021).

Programi obrazovanja učitelja trebali bi integrirati kolegije o sociokulturnim utjecajima, kulturološki relevantnim strategijama i inkluzivnom dizajnu nastave. Snažna osnova u kulturološki prilagođenoj pedagogiji osigurava da budući učitelji budu sposobni učinkovito uključivati raznolike učionice. Pregledi literature naglašavaju da kontinuirani, visokokvalitetni profesionalni razvoj ključan za pripremu učitelja usmjerenih na jednakost (Sleeter, 2018).

Sustavi evaluacije trebali bi prepoznati i nagrađivati kulturološki prilagođene prakse. Kriteriji trebaju uključivati prilagodbu nastave kulturnim potrebama učenika, poticanje inkluzivnih okružja i kontinuiranu samorefleksiju. Takvi sustavi evaluacije potiču učitelje na stalno jačanje kulturne kompetencije.

Podrška profesionalnim zajednicama učenja koje povezuju učitelje u različitim kontekstima može olakšati dijeljenje najbolje prakse i resursa. Inicijative poput mentorskoga programa *Puget Sound Educational Service District* za učitelje različitih

etničkih grupa pokazuju kako strukturirane mreže mogu unaprijediti podršku usklađenu s različitosti (PSESD, 2020).

Dugoročno praćenje i istraživanje utjecaja kulturološki prilagođenih praksi potrebno je za unaprjeđenje politika i obuke. Prikupljanje dokaza tijekom vremena osigurava da strategije ostanu relevantne i učinkovite u poboljšanju ishoda za raznoliku populaciju učenika.

Prioritetnim provođenjem ovih pristupa, obrazovni sustavi mogu stvoriti pravednija i inkluzivnija okružja za učenje. Iako ograničen u opsegu, projekt **SMILE u Koreji** pokazuje kako uronjeni i kulturno bogati profesionalni razvoj može potaknuti značajan rast učiteljeve kulturne osjetljivosti i prilagodljivosti—uvide koji mogu informirati i politiku i praksu.

### ***Napomena***

Iskreno zahvaljujemo na velikodušnoj podršci Fulbright-Hays Group Project Abroad programa Ministarstva obrazovanja za ovaj projekt. Njihov doprinos dodijeljenom potporom bio je ključan za njegov uspjeh, a mi duboko cijenimo njihovu predanost uspješnom dovršetku projekta i unaprjeđenju obrazovanja učitelja.

Etička izjava: Ova je studija provedena u skladu s etičkim standardima i smjericama Povjerenstva za institucionalni nadzor istraživanja (IRB) pri Sveučilištu Texas Arlington. Protokol ovoga istraživačkog projekta pregledan je i odobren pod brojem protokola 2020-0074.2. Informirani pristanak dobiven je od svih sudionika. Svi prikupljeni podatci anonimizirani su kako bi se zaštitila privatnost i povjerljivost sudionika. Istraživanje je provedeno u skladu s etičkim standardima naše institucije.

Izjava o sukobu interesa: Autori izjavljuju da ne postoje sukobi interesa povezani s ovim istraživanjem, autorstvom ili objavom ovoga rada. Nijedni financijski, profesionalni ili osobni odnosi nisu utjecali na dizajn, provedbu, analizu ili tumačenje studije.