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WP3 – "DIGITAL COMICS OF MIGRATION"

LEARNING PROGRAM

YILDIZ TECHNICAL UNIVERSITY

TÜRKİYE

Erasmus+ KA220-SCH Strategic Partnership in School Education

-DICOMI-

DIGITAL COMICS OF MIGRATION

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1. INTRODUCTION

This work package (WP3) includes teacher training and student implementation of Dicomi modules designed in WP2. Dicomi modules integrate migration and digital comics to improve learning experiences and improve academic success and belonging of students whose families migrated. The ten modules of Dicomi were designed with Social and Emotional Learning and 3E Framework: Enhance, extend and empower.

This report explains the teacher training and student implementation process performed by Yildiz Technical University, the applicant institution of the project. The participants, dates, place, and the content of both tasks are explained with reference pictures and informatics.

2. TEACHER TRAINING

Teacher training event is designed to train teachers for the following:

- How to make learning environment and lesson designs inclusive for disadvantaged students, especially for the students whose families migrated because of war
- How to include digital learning tools and materials effectively into lessons
- How to use comics and digital comics effectively as educational materials

The Dicomi modules for teachers aimed to improve teachers' inclusive, digital and effectively comics integration skills through both the 10 modules designed for in-class implementation and Module 0, which exclusively aimed to give brief information about inclusiveness, digitalization and comics for education. Module 0 is only for teacher training, including key information and strategies to use in both Dicomi implementation and other courses. It is designed one-for-all to address different courses, from social sciences such as history and language to mathematics and science, even sports.

Before implementing teacher training, the project members searched for schools voluntarily to implement Dicomi modules in their courses. This way, teachers who will implement Dicomi modules are asked to attend teacher training to improve the effectiveness of the student implementation process. A public middle school in Sancaktepe, Istanbul volunteered to implement Dicomi modules in one of their 7th grade classes in 2025-2026 education year. Also, another private school informed their interest in teacher training and one teacher from their institution attended teacher training.

Teacher training is planned to be implemented in summer break of the schools as the teacher of the class had more time to devote teacher training. Two teachers in two different types of schools attended teacher training sessions between 6-8 August, 2025. The sessions were implemented online with the full participation of the teachers and the teacher trainers.



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2.1. DESCRIPTION OF THE PARTICIPANTS

The two teachers participated in teacher training sessions were social studies teachers working in different types of schools. One of them worked in a public school in Sancaktepe, Istanbul while the other worked in a private school in Ataşehir, Istanbul, Türkiye. They were both female and graduated from Yildiz Technical University, social studies teaching department. Also, they both have Master's degree in Social Studies Teaching from Yildiz Technical University. In their undergraduate and graduate degrees, they took Comics in Education course given by Genç Osman İlhan, the coordinator of the Dicomi Project. They both had previous knowledge and experience in designing educational comics. They were both interested in the project as they had students whose families migrated in their classrooms. The participants had 1-5 years of teaching experience.

2.2. TRAINING EFFECT ON DIGITAL SKILLS

The participants stated that they enjoyed the digitalization aspect of the Project as a whole. They outlined that the Gen-Z students ask for digital content and are motivated by digital educational tools. Also, they stated that they were aware that their students will need digital skills in the future, as most jobs are digitalized and the digital world is taking up most of the market. Every Dicomi module was designed to integrate digital tools and materials to support the Digitalization Movement of the EU, as one of the main goals of the project. They stated that they were glad to be provided with digital content and tools ready to be used in their courses.

The participants found the digital tools and content in the modules effective and purposeful. They mentioned students liked digital content and are easily motivated when they use smartboards, Kahoot, or any digital content in lessons. However, they explained that it takes time for them to plan and design effective materials and content for the lesson objectives. Dicomi digital materials are designed interdisciplinarily to fit different types of courses, and each content and material is presented with their objectives to help teachers integrate them into their lesson plans. Participants explained the effectiveness and practicality of presenting digital content and materials with objectives, and they did not have to think for the goal of the activity and could integrate in their curriculum and lesson plans easily.

Although both teachers explained their satisfaction with the digital content and materials in the modules, public school teacher outlined her concerns as: *"In my school, we don't have individual computers or tablets that students can use in lessons. I cannot ask them to bring their tablets either, as it is forbidden to bring them to school. Thus, it is not always easy to implement individual digital tasks in my lessons"*. The trainers explained the traditional alternatives of these digital tasks in the modules. As digitalization is one of the main goals of the Project, each module integrates digital

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tasks, tools or content. However, these tasks, tools and content are provided with traditional alternatives. Public school teacher was glad to be provided with traditional alternatives as well, and outlined that this would increase the practicality of the Project in diverse learning environments and the practicality of the modules for both teachers and students.

2.3. TEACHERS' REACTION TO COMICS IN EDUCATION

The participant teachers had previous information about using comics and digital comics for educational purposes. At the end of the training, they explained that they had pre-service education on comics and education at Yildiz Technical University. They knew that comics could be used for educational purposes, had designed educational comics in undergraduate level. Their previous knowledge helped them grasp the comics-related goal of the project as they were familiar with the educational aspect of comics.

Both teachers explained that their students liked and enjoyed to read comics as pleasure reading, especially the famous ones such as *Dog Man* (Dav Pilkey) and *Smile* (Rana Telgeimer). They also quoted their students for that comics was not a trusted reading genre by the teachers. They explained their students often told them how other teachers did not accept comics as a reading book, especially Turkish teachers, and how they asked students to read books other than comics. In fact, comics are quite criticized for the lack the depth, complexity and vocabulary compared to traditional novels. They are found “too” easy to read, which disable comics from developing students’ knowledge or language skills. The participating teachers also stressed the inappropriate content and vocabulary in some comics, especially highly popular series and types in the market. They explained students like the popular comics characters such as Spider Man, Batman, and other characters especially in Marvel series. However, they outlined students preferred to watch the videos of these characters rather than reading their comics. The comics they read are mostly not transferred to cartoons or movies, such as *Dog Man* or *Smile*.

Teachers indicated that using comics in education is highly motivating for students, as students liked comics. However, they explained it is not easy to find course-related comics that address the objectives of their lessons. The historic comics based on the lives of Ottoman sultans are preferred in generally, but they are too long to read in classroom, and not aligned with the course objectives. As both participants knew to design comics, they explained they design digital comics from time to time. The public school teacher explained that she seldom uses comics in her classes, especially the digital ones because of the limited time and equipment. Even if she designed digital comics in alignment with the course objectives, she did not have individual tablets or computers that students can read on their own in lessons. She added they could read the digital comics at home, but it is time



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consuming and requires the control and support of parents. However, the private school teacher explained she uses comics in her lessons, as she has the opportunity to both print the comics in colour and use the computer laboratory of the school. She explained that she designs and uses comics, but not very often.

Participant teachers explained that they liked the comics designed for Dicomi and found them effective for different disciplines. They indicated the order, design, colouring and the length of the comics were appropriate to be used in classroom, as it leaves time to both reading and doing a pre and post-reading activity. Also, they explained that they found the content and the objectives of the comics quite useful for different courses. They uttered the comics could be used in language, mathematics, history, geography and science courses.

2.4. TEACHERS' PERSPECTIVES/REACTIONS ON MIGRATION AND EDUCATION

During the training, the participants showed high interest in digital comics and integration of migration into courses. As both teachers had immigrant students in their classroom the previous school year (2024-2025), they experienced the difficulty of inclusion of migration. Because of the Syrian war, Türkiye has high numbers of immigrants, 3.5 million Syrians under temporary protection, about 800-850 thousand of whom are students in Turkish public and private schools. In spite of these high numbers, participating teachers indicated they had no previous instruction for inclusion for the immigrant students. The teacher working in public school stated: *"I had many immigrant students in my classes this year. I tried to do my best, but I am not sure if I succeeded. We received no training or anything neither pre-service or in-service stages for migration and education"*. The teacher working in private school reported they had in-service training in their institution as: *"We work as interns in the first year we start working here. We observe classes, prepare materials and lesson plans. Sometimes we teach, but we don't have classes on our own. In this training year, we learn from the experienced teachers what to do for immigrants, but this is not theory-based or effective way. Maybe they are mistaken, too, I don't know"*.

Although private school teacher had in-service training, migration and education was a neglected topic in both private and public school teachers' professional development. Dicomi teacher training filled this gap through migration teacher training. Both teachers indicated that they did not know the methods and strategies for instruction for immigrants. Also, they explained regular curriculum content included few immigrant visuals, voice and representation. The public teacher said that *"There are no immigrants or stories of migration especially for other countries. There are limited representation of Syrian immigrants, but not for other countries. If you publish only immigrants to your country, students think that it happens only here in Türkiye"*. Both teachers liked the



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representation of international migration, especially war-caused migration (Ukrainians especially). As war has violence items and reflections, they explicitly explained finding educational materials for war-caused migration is significantly difficult. They liked the materials for both including authentic representations and being sensitive for age and migration history. The colors, visuals and symbols used in the comics gained teachers' appraisal and appreciation.

3. ANALYSIS OF STUDENT IMPLEMENTATION

The student implementation included practicing 10 modules of Dicomi in classrooms. Trained teachers were asked to implement the modules with the materials and comics designed in the project. Only one teacher could grant required permissions from her school administration. Thus, Dicomi modules were implemented only in Sancaktepe, Istanbul with 31 students in a 7th grade classroom. The teacher was provided with the project materials, printouts and assistance. The implementation frequency was determined according to the curriculum and timetable of the classroom. All modules were implemented in social studies lesson by the trained teacher herself.

3.1. DESCRIPTION OF THE PARTICIPANTS

The participants of Dicomi implementation were 7th grade students in a public school in Sancaktepe, Istanbul, Türkiye. Their ages varied between 10-11. Among the 31 participant students, 17 were female and 14 were male students. They all lived in Istanbul, Türkiye.



3.2. DIGITAL SKILLS

Improving the digital skills of students was one of the objectives of this project. Thus, the teacher specifically benefited digital materials and games designed in the modules. As the school was a state school, the technological infrastructure was not sufficient at the school. Thus, the teacher showed the comics on the smart board, as well as distributing print-outs to them. She remarked that when students saw the comics in digital, they expressed their adoration and said “Voow” as a whole class. The teacher said that this reaction surprised her and told “students must have liked the visuals in big and real-like forms on the smartboard. They liked them very much and they listened to the lesson very carefully”.

Each module integrated at least one digital material or activity to improve the digital skills of students. The comics were designed as digital modules, and they were used in both digital and traditional formats in the implementation process. Also, students were asked to design mini-comics on Pixton web tool. As students saw Dicomi digital comics and they were instructed how to design comics on Pixton, they designed digital comics at home.



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Another digital experience students had was the pre and post tests designed in Google Forms. Students filled in the Google Forms with their parents at home. This way, both students and their parents used digital skills.

3.3. STUDENTS' REACTION TO COMICS IN EDUCATION

Students were knowledgeable on comics and 60% of them declared they liked comics (Figure 1). Also, more than 60% of students indicated they read comics before the project implementation (Figure 2). After the implementation, the percentage of liking comics rose to 77% (Figure 3) while a majority of students indicated they read comics also at home (more than 70%, Figure 4). The implementation process both increased reading levels of comics and students liked comics better.

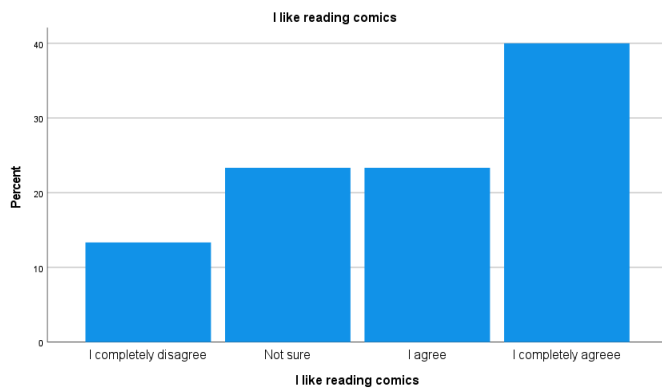


Figure 1. Like/dislike comics pre-test

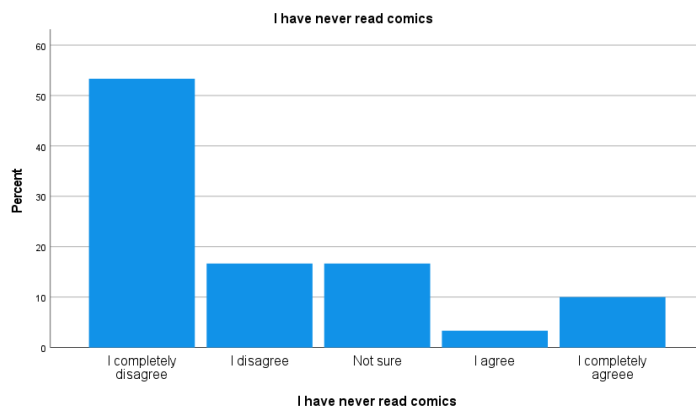


Figure 2. Reading comics pre-test

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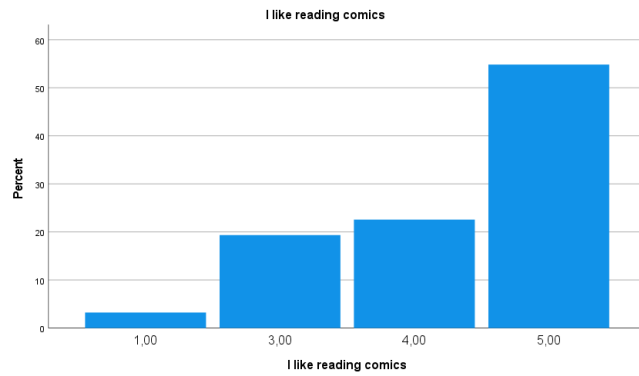


Figure 3. Like/dislike comics post test

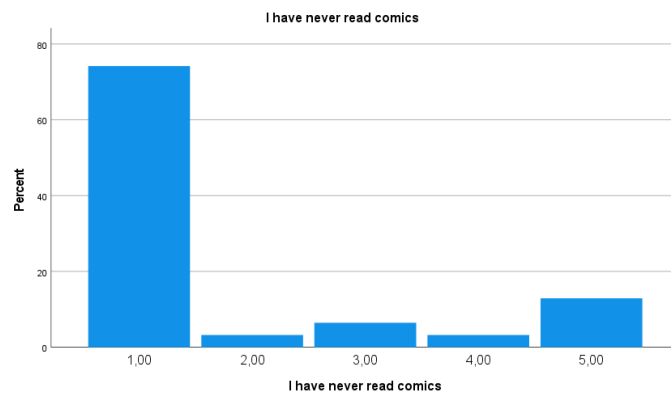


Figure 4. Reading comics post test

The implementation process also changed the idea of students on the function of comics. Before implementation, most students believed comics was only for fun (more than 50%, Figure 5). However, after the implementation, they disagreed more to the item “Comics are only for fun” (more than 50%, Figure 6). Most students selected “Not sure” probably because they were confused to use comics for pedagogical objectives and actively reading them in lessons.



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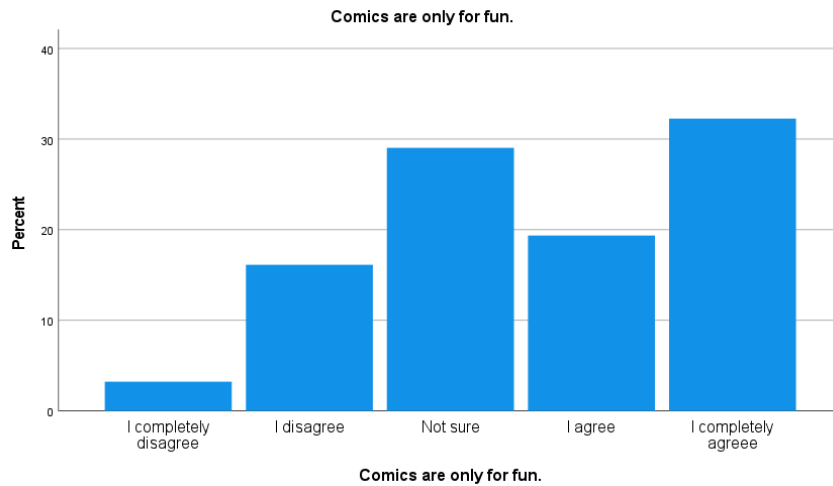


Figure 5. Comics only for fun pre-test



Figure 6. Comics only for fun post-test

3.4. EMPATHY AND SOCIAL SKILLS FOR MIGRATION (STUDENTS)

Dicomi modules specifically aimed inclusion and understanding of migration. The pre and post test results clearly outlines the positive effect of Dicomi implementation. In the pre and post test, students were asked about social inclusion, acceptance and understanding of peers whose families migrated. As Türkiye has received almost 1 million students from Syria, empathy and acceptance are two main skills to be improved for Turkish students.

During implementation, students learned the migration journey, the difficulties and integration difficulties of immigrant students and families. Both Dicomi comics and modules helped them learn authentic migration stories and engage in critical thinking for migration. Student products clearly display empathy and acceptance. In Figure 7, students wrote “We should empathy with people when talking” at the top of the worksheet. At the bottom of the worksheet, they wrote “We are all the same, we should not be racist”.

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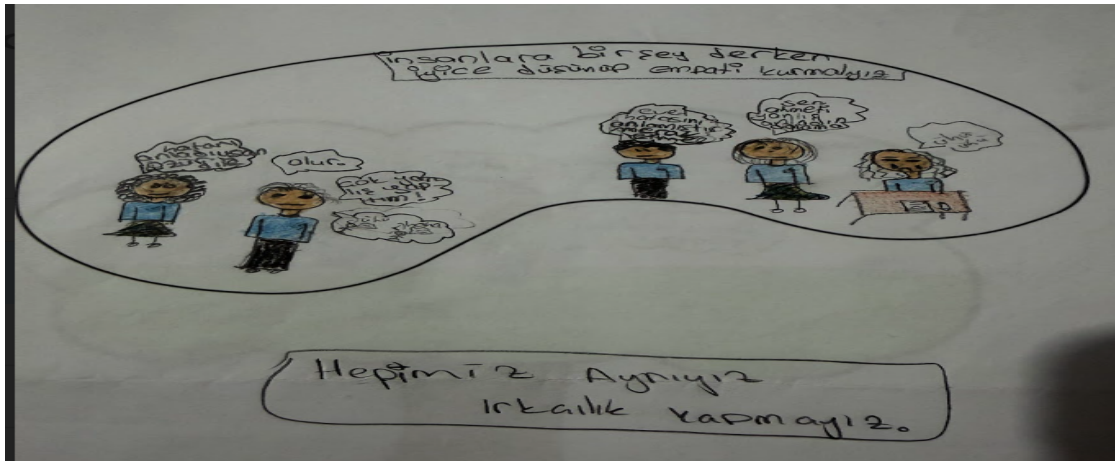


Figure 7. Empathy and inclusive remarks of students

Students overtly emphasized inclusiveness and understanding in their products. In Figure 8, it can be seen that students also highlighted “empathy” towards immigrants. Students drew empathy in different contexts: at supermarket, at school and outside. They used three leaves of a flower to visualize how to behave with empathy towards others, especially immigrants.

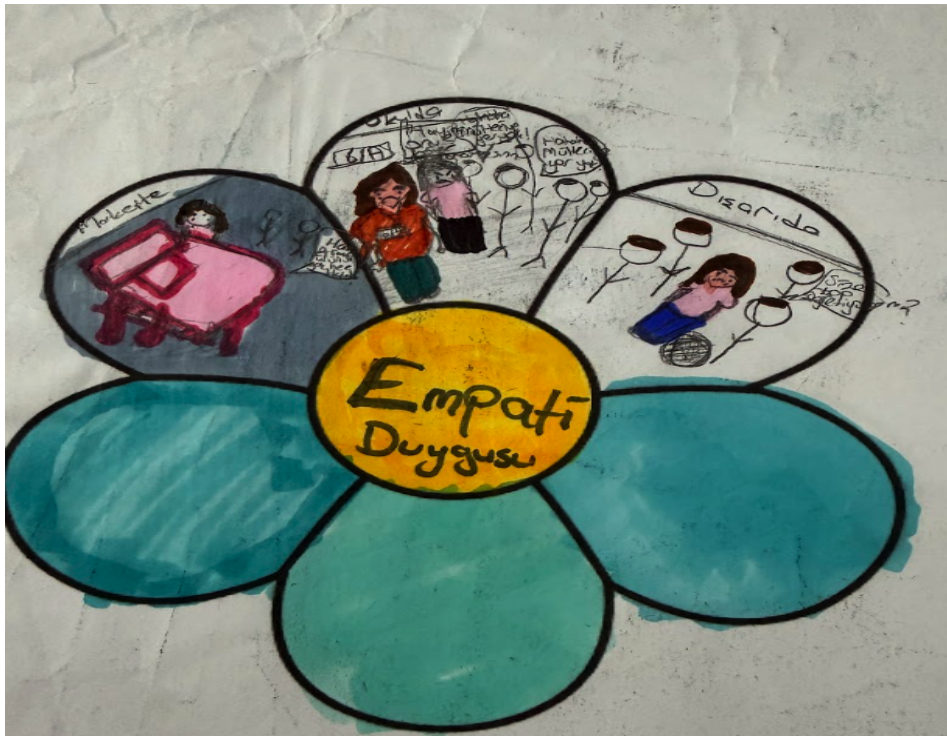


Figure 7. Student product, empathy

In Figure 8, students drew mini-comics. They depicted a scene where an immigrant enters Ataturk School, the school where the implementation took place. In the comics, the local students *welcome* immigrant student who comes from Britain. The local students says “Respect (Saygı)” at the end of

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the comics. This quote of the local student shows that participant students believed respect was significant in relationship and communications with immigrants.

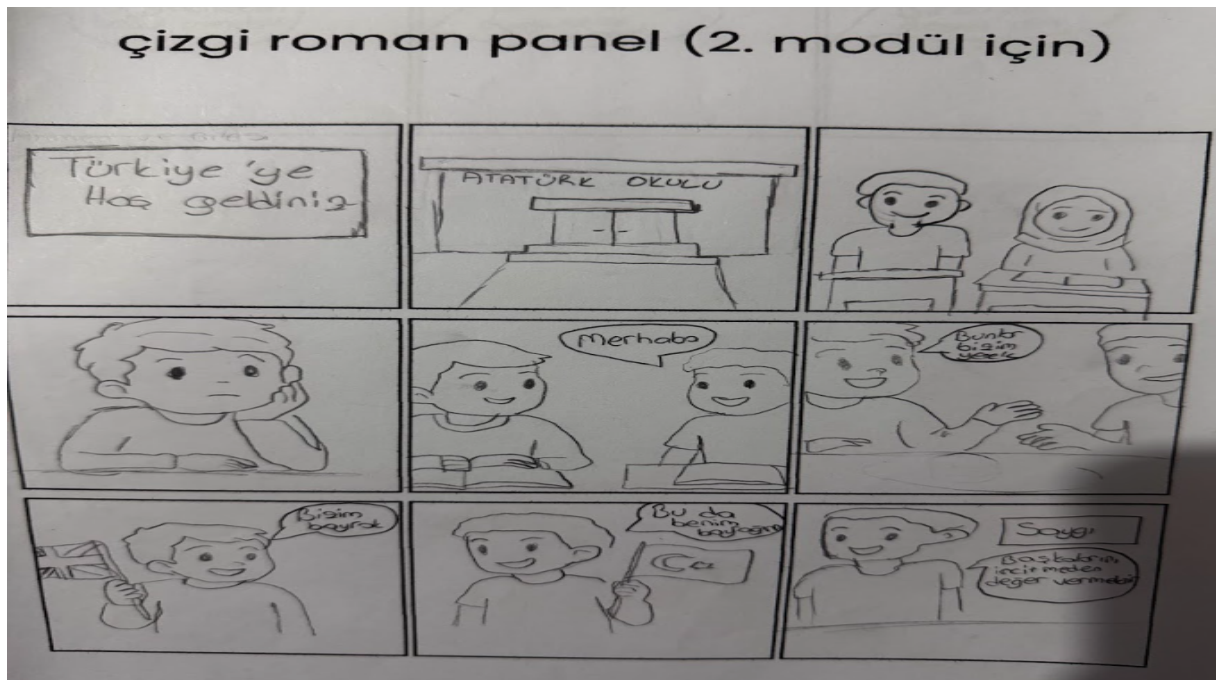


Figure 8. Student product, welcoming immigrants

The quantitative indicators also indicate the effectiveness of Dicomi implementation on students' understanding and empathy for migration. Before implementation, student believed that nobody should leave their country by 50%. After the implementation, more than 50% of students indicated that they did not agree with this statement (Figure 9 and 10).

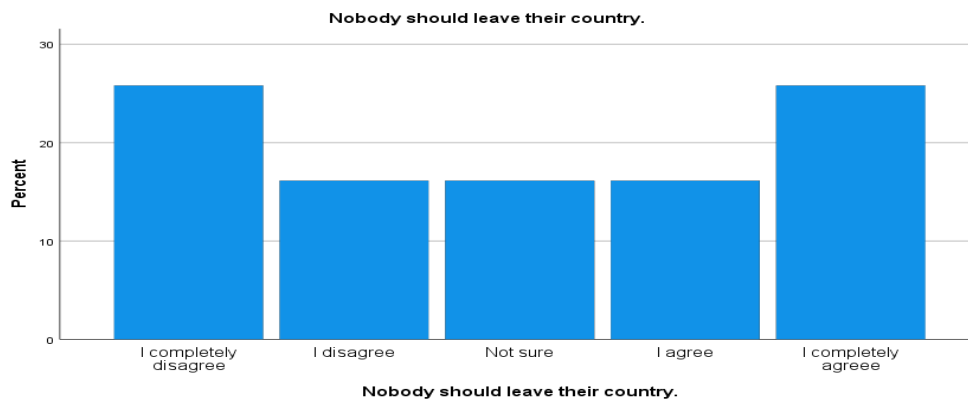


Figure 9. Nobody should leave their country pre-test



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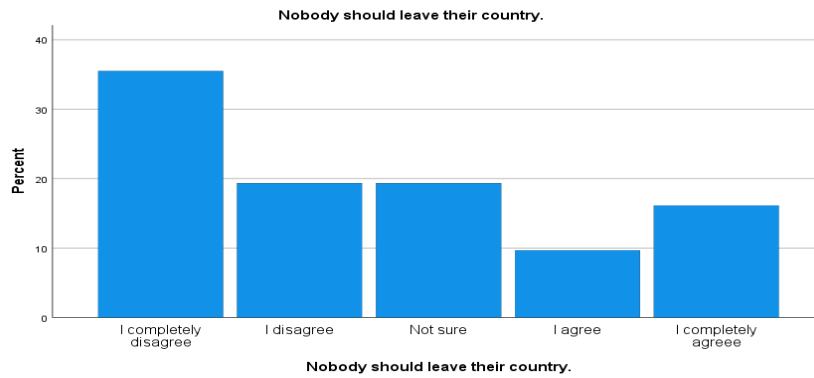


Figure 10. Nobody should leave their country post-test

Also, more than 60% of student strongly disagreed that immigrants should feel they are not from this country. More than 20% of students also disagreed. Although the percentage is promising and students already displayed inclusive attitude towards immigrants, they became more persistent in their attitude after the implementation. After the implementation, almost 80% of students strongly disagreed to making immigrants feel they are not from this country.

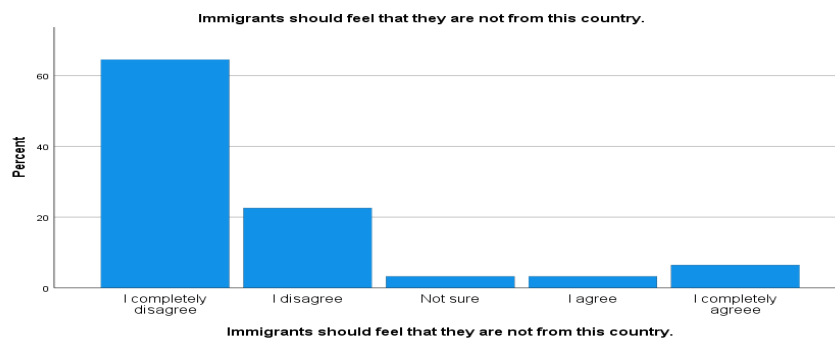


Figure 11. Feeling of immigrants, pre-test

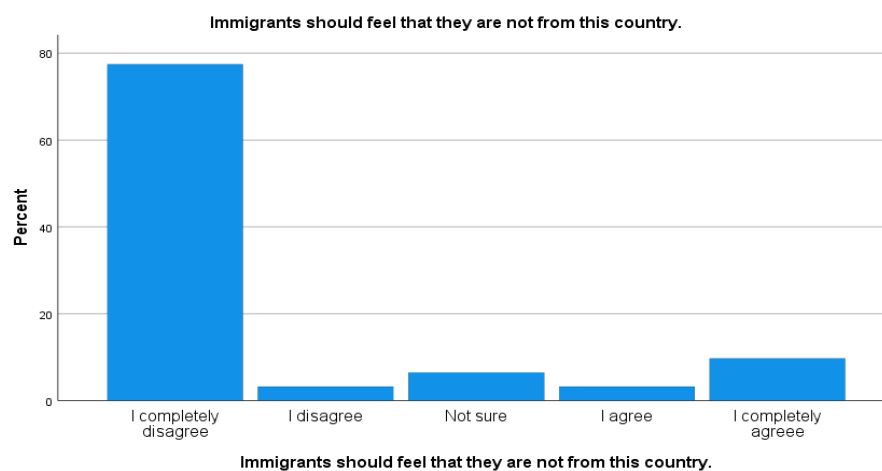


Figure 12. Feeling of immigrants, post-test

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4. CONCLUSION

The teacher training and student implementation of Dicomi modules were practiced successfully and effectively with two teachers for teacher training and 31 students for student implementation. Teachers outlined the effectiveness of Dicomi comics and modules. They clearly indicated that Dicomi comics and modules are effective tools tailored with influential techniques for digitalization, comics education and inclusiveness. Through online teacher training sessions, the teachers were instructed for Dicomi modules and comics, engaging in the tasks designed in the modules and using digital tools. Through teacher training, professional development of teachers for digitalized education was improved. Also, teachers specifically outlined the lack of in-service training for migration and inclusive education for migration. They liked both Dicomi modules and comics and teacher training sessions as they targeted inclusive education for students whose families migrated. Providing interdisciplinary teaching materials and content designed for this neglected but highly significant topic was also appreciated by the teachers.

Through student implementation, three targets of Dicomi were met: comics as educational materials, digitalization movement of education and inclusiveness for migration. Students liked comics and started reading comics more, they understood comics could be educational materials. For digitalization, digital comics and digital activities were used in classrooms. Students used Google Forms and Pixton at home, and they used digital versions of Dicomi comics in the classroom. As for social inclusion and empathy, both pre and post tests and student product clearly outline that students become more tolerant, improved their empathy and understanding, and adopted positive communication towards their peers whose parents migrated.

As a result, both teacher training and student implementation were effectively and successfully practiced. The results and student products outline the effectiveness of Dicomi modules and comics for comics education, digitalization and inclusiveness for migration.