4. INTERVENTION PROGRAM FOR CLASSES WITH REFUGEE CHILDREN – THE COOPERATIVE LEARNING METHOD

Notes on teaching methodology

The jigsaw classroom method was initially designed to improve relations between Caucasian and African American children during racial desegregation of schools, but was later implemented in various formal and non-formal education programs throughout the world. It emphasizes cooperation between students and students teaching each other, with each member of the group playing an active role in both learning and teaching the content. Research has shown that cooperation-based tasks lead to better results than competition-based tasks. Although the method lays emphasis on knowledge transfer between students, the teacher plays a key role in ensuring the success of the process. The teacher's role is supervisory – s/ he introduces the task, explains the activity, divides students into groups, supervises group work, and makes sure that the task remains cooperative and does not turn into a competition within the group or between groups. For the workshop to be successful, the following elements need to be given special attention:

1. Dividing students into groups

When implementing the jigsaw classroom method, the aim is to ensure positive contact between a refugee child (usually there is a single refugee child in the class) and his/her Croatian peers. The jigsaw classroom is based on direct, face-to-face contact. To ensure that the interaction between students is as direct as possible, throughout the intervention program the refugee child should take part in a (jigsaw or expert) group with each host-society child attending the same class (or as many host-society children as possible if the class is very large). Therefore, students should be divided into new jigsaw and expert groups for each workshop, keeping in mind the rules of the jigsaw classroom activity. Moreover, the refugee child should never feel singled out or the subject of special attention, which is why all students, and not only the refugee child, should change groups. For the initial intervention program, we prepared group divisions for each workshop beforehand, and distributed them to the teachers. One example of such group division in an

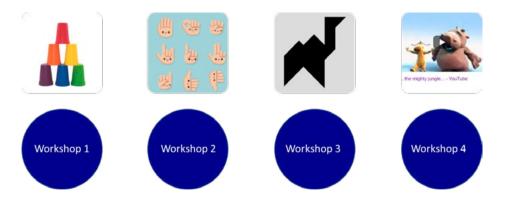
imaginary class can be found at the end of the cooperative learning section of the workbook accompanying this handbook. Workbooks were important for us to monitor the implementation of the intervention program, but are not required for workshop implementation. Still, we recommend their use, because monitoring workshops by using workbook activities provides better insight and easier identification of children's reactions to the workshop, and allows adapting future activities to make them more stimulating for students.

2. Communication during the activities

It has already been mentioned that the language barrier is the single most significant obstacle to integrating refugee children. To ensure equal footing between host-society and refugee children, how well children speak and understand the majority language should be taken into account. Therefore, the tasks have been designed to be nonverbal with as few verbal instructions as possible, and where possible, words were replaced by pictures and/or movements.

Description of workshops

The first workshop focuses on nonverbal cooperation, with all the students having the same role – to coordinate movements among themselves to complete the task. The remaining three workshops are based on the jigsaw classroom principle. What follows are lesson plans for the workshops in the cooperative learning intervention program. The workshops are designed to be used with elementary school children.



All the materials necessary for the workshops are available in the digital repository of the Faculty of Humanities and Social Sciences (https://urn.nsk.hr/urn:nbn:hr:131:833288).

Workshop 1: Tower of Collaboration

AIM: To encourage student contact and cooperation, to coordinate

movements in teamwork

DURATION: 1 period

MATERIALS: Materials for this workshop are available in the digital repository

of the Faculty of Humanities and Social Sciences (https://urn.

nsk.hr/urn:nbn:hr:131:833288).

Illustration of the task, one copy for the teacher, on an A4 sized sheet (r1_prikaz_tornja.pdf)

Video demonstrating the tower being assembled (r1_uvodni_ video.mp4)

- Each group of four students should get:
 - 6 cups made of sturdy plastic
 - 1 rubber band with four pieces of rope/string attached (the number of pieces of rope should match the number of children in the group)

METHOD

INTRODUCTION (10 min)

At the beginning of the class, the teacher shows a video demonstrating how to assemble the tower, and then divides the students into groups of four.³ The groups should stand in different parts of the classroom.

Today we will play a game to see how we perform in activities which require dexterity and collaboration without saying a lot. First we will watch a video which shows what you will be doing in your groups later.

The teacher plays the video (r1_uvodni_video.mp4).

³ The division into groups that we used for the intervention program is available in the workbook. The list for the first workshop is labeled as R1 – Grupa 1, the list for the second workshop appears under R2, etc. In this way we ensured that each refugee child is part of a group with a different set of host-society peers, which is crucial to realizing the desired program outcomes. Although dividing children into groups according to a prearranged plan is not strictly necessary in future workshops, we believe that it is preferable to letting children form groups themselves, because the refugee child may only ever end up in a group with children that s/he normally socializes with. This is why the workshop lesson plan refers to our suggested group division list given in brackets. However, teachers conducting the workshop outside the IRCiS project are free to adapt this, and select a different group division.

INTRODUCTION (10 min)

Now I will divide you into groups and you will try to build the Tower of Collaboration like you have seen in the video. You will be working in groups of four; members of the first group are (read the list of children in Grupa A on the R1 – Grupa 1 list, and immediately show the children to their table), members of the second group are (read the list of children in Grupa B on the R1 – Grupa 1 list),...

Each group gets 6 cups and a rubber band with ropes/strings attached, and the teacher says:

Each group has been given cups and a rubber band with a rope. Your task is to stand around in a circle, and each group member should hold one piece of rope in their hand in such a way that the rubber band is in the middle of the circle. Now try to build the Tower of Collaboration using the cups, as shown in this picture (r1_prikaz_tornja.pdf). You can only hold the rope with one hand, as seen in the video. Use whatever hand is easiest / the one you normally use to do things / write. The task is completed when you manage to build a tower out of all the cups. The colors of the cups are not important. As you work, it is important to use as few words as possible. Remember, all members of the group should participate, and once finished, the tower must stand, so it is important to cooperate and work together. You have enough time, you do not need to compete or rush. Any questions? Do all of you understand the task?



The Tower of Collaboration

GROUP WORK (12 min)

Students stack the cups to build the tower. The teacher goes from group to group and supervises. At the end, the teacher praises successful completion of the task, and encourages students to congratulate each other within their group (e.g., by giving high fives, applauding).

ROTATION (2 min)	The teacher divides students into new groups (read the list for R1 – Grupa 2): Now we will break into new groups. Listen carefully! Members of the new first group are (read the list of names from Grupa F appearing on the R1 – Grupa 2 list, and show them to their table), members of the second group are (read the list of names from Grupa G on the R1 – Grupa 2 list)
GROUP WORK (12 min)	Repeat the task with the instruction: Check whether each group has 6 cups and a rubber band with the ropes. Your task is to stand in a circle once again, and for each group member to actively participate in making the tower. When you complete the tower, congratulate each other again. Remember – this is not a competition, it is important that you work together and that the tower is stable at the end! Students build the cup tower. The teacher goes from group to group and supervises. At the end the teacher gives praise for successful completion of the task and encourages students to congratulate each other within their group (e.g., by giving high fives, applauding).
END OF THE LESSON (2 min)	At the end of the lesson the teacher congratulates all groups on successfully completing the task and emphasizes the importance of working together to achieve the final goal – everyone's contribution is important to ensure success.

Changes recommended on the basis of feedback after the intervention workshops:

- Sometimes children need to be reminded not to use verbal communication, because they get carried away.
- Special attention should be given to ensure that groups do not compare with each other or compete; the emphasis should be on collaboration.
- A more demanding task can be used with older children, for instance, building a more complex and higher tower or build the tower with closed eyes following the instructions of one student

Workshop 2: Sign language jigsaw

AIM: To learn words in Croatian Sign Language, to work in teams,

to encourage tolerance for diversity

DURATION: 1 period

MATERIALS: Materials for this workshop are available in the digital repository of the Faculty of Humanities and Social Sciences (https://urn.

nsk.hr/urn:nbn:hr:131:833288).

 Demonstration video with selected words from the Croatian Sign Language (r2_uvodni_video.mp4)

Illustrations of words and examples of sentences for teachers (r2_pojmovi_i_recenice_za_nastavnike.pdf)

Materials for expert groups

one tablet or mobile phone per group – to show the videos

- videos with instructions on how to sign words in Croatian Sign Language (r2_osobe.mp4, r2_zivotinje.mp4, r2_ radnje.mp4 i r2_predmeti.mp4)
- Materials for jigsaw groups
 - Illustration of a sentence (r2_recenice_za_povratak_u_ maticnu_grupu.pdf)

METHOD

INTRODUCTION (2 min)

The teacher first divides the students into jigsaw groups of four students (if this has been prepared in advance, read the groups for R2 – matična grupa). The groups should stand in different parts of the classroom.

Today's task is about learning to speak or communicate in a special way. Which way is that? You will find out during the workshop! We will work in small groups, so listen carefully! The members of the first group are (read the list of names under Grupa A in R2 – matična grupaand show them to their space), the members of the second group are (read the list of names under Grupa B in R2 – matična grupa)...

JIGSAW GROUP (5 min)



When all students have been divided into jigsaw groups, the teacher gives further instructions for the sign language jigsaw.

This time we will do a short workshop where you will learn some signs from Croatian Sign Language. Does anyone know what sign language is? Who uses sign language? Have you ever seen someone using sign language?

Croatian Sign Language is used by people who cannot hear. Sign Language has its rules, and the signs are made with your hands, arms, head, face and your body. Every word or sign has its own movement.

We will now watch a video showing some signs from Croatian Sign Language.

The teacher plays the video "r2_uvodni_video.mp4Znakovnica".

ROTATION (2 min)

The teacher divides the children into expert groups (read the list of children under R2 – ekspertna grupa).

Now we will divide into expert groups; these are the groups in which you will learn to sign some words from the Croatian Sign Language.

EXPERT GROUP (15 min)









The teacher gives instructions and explains that students will learn some signs in each group. Students should learn these signs well, because they will later show them to their friends once they return to their jigsaw groups. Each expert group gets a tablet or a mobile phone with the videos.⁴ Each expert group gets a set of different signs to learn.

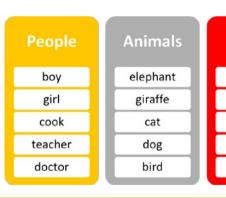
Action

listen

watch love

go

write





People – Osobe: https://youtu.be/ju1IMpN8250 Animals - Životinje: https://youtu.be/xJQL1mm-frU Action - Radnje: https://youtu.be/510iKSo8qBE Objects - Predmeti: https://youtu.be/Se2E13lvSqq

⁴ In addition to the repository, you can also access these video materials on the project's YouTube channel:

EXPERT GROUP (15 min)

Each expert group gets a different video, with five signs from Croatian Sign Language. The group with video "r2_osobe.mp4" will learn to sign the following words: boy, girl, cook, teacher, doctor. With children in their expert groups, the teacher gives the following instruction:

Each group has been given a tablet. The tablet contains a video. Each group has a different video. Your task in these groups now is to learn to sign the words which are shown in your video. You can practice them together and help each other. You should learn them well, you need to become experts in these signs, because you will later be showing them to your other friends.

As students practice the movements, the teacher goes from group to group and supervises their work.

ROTATION (2 min)

The teacher tells the students to return to the jigsaw groups that they formed at the beginning of the lesson (R2 – matična grupa).

JIGSAW GROUP (10 min)





Each jigsaw group gets an illustration of a sentence that contains one word from each of the expert groups – each child from the jigsaw group has their unique role: to sign the appropriate word to the other members of the group and teach them how to sign it by repeating after him/her.

For instance, the jigsaw group gets the sentence as shown below. The child from the expert group "people" signs his/her word ("girl"), and all the other students repeat it after him/her, then the child from the expert group "animals" signs his/her word ("dog"), the others repeat, then the third child signs the action ("go"), and the fourth child signs the object ("house").









Example of the sentence "The girl and the dog are going home."

The teacher gives the following instruction:

Each group has been given a picture. Each member of your group can sign one element from this picture. Your task now is to sign the entire sentence – each one of you should show the word they have learned, and the others should repeat it after him/her. You now have five minutes to practice this together.

JIGSAW GROUP (10 min)

The teacher supervises group work to make sure that all the members of each group are participating, and provides assistance if necessary. Each child should be able to successfully sign their word, and to ensure the participation of the refugee child, it is particularly important that s/ he completes her/his part of the task. After five minutes of practicing the sentence, jigsaw groups present their sentence to the remainder of the class, who guess their meaning. The teacher encourages group members to congratulate each other after successfully signing their sentence. The students should be told that this is not a competition.

The teacher gives the following instructions:

Now each group will show us their sentence. Students from the other groups can try to guess its meaning. If you have an idea what the sentence means, please raise your hand. Remember that this is not a competition, each group should have enough time to show their sentence and all the students should participate!

END OF THE LESSON (4 min)

At the end of the lesson, the teacher congratulates each group on the successful completion of the task and encourages them to congratulate each other within their jigsaw groups (e.g., "high fives"). The teacher points out the importance of working together to achieve their final goal – everyone's contribution is important for the ultimate success.

The teacher concludes the lesson by saying that they have learned several words from Croatian Sign Language, asks the students how they liked it and whether they would like to learn more sign language words.

Today we have learned several words from Croatian Sign Language. There are also other sign languages like American Sign Language, German Sign Language and French Sign Language. Just like other languages we speak, sign languages also have many words that can be learned which makes it easier to communicate with people who cannot hear. How did you like this lesson? Would you like to learn more words from Croatian Sign Language?

Changes recommended on the basis of feedback after the intervention workshops:

 This workshop is interesting and motivating for students. Older students found the task easy, and, if there is time at the end, a more challenging task can be added, for instance for students to come up with their own sentences in their group and then present them to the entire class who should "translate" them.

Workshop 3: Tangram jigsaw

AIM:

To stimulate contact and collaboration, to teach each other and learn cooperatively, to develop visual perception skills and spatial relations

DURATION: MATERIALS:

1 period

Materials for this workshop are available in the digital repository of the Faculty of Humanities and Social Sciences (https://urn.nsk.hr/urn:nbn:hr:131:833288).

- Introductory video demonstrating how to complete the tangram (r3_uvodni_video.mp4)
- Materials for the expert group
 - one tangram for each child (r3_pocetni_tangram.pdf)
 - illustrated set of instructions on how to complete the tangram, one per group (r3_upute_za_ekspertne_grupe.pdf)
 - "a cheat sheet" with the tangram shape from the expert group for each child (r3_salabahter.pdf)
- Materials for the jigsaw group
 - pictures of tangram shapes for the jigsaw group, all the shapes for each group (r3_prikazi_tangram_likova_za_ maticnu_grupu.pdf)

METHOD	
INTRODUCTION (2 min)	At the beginning of the lesson the teacher says: Today we will do a new activity and develop our skills of making a tangram. We will work in small groups. First, I will divide you into groups of four students. These will be your jigsaw groups. Students should sit together with the other members of their group (R3 – matična grupa), and the groups should be in different parts of the classroom.
JIGSAW GROUP (8 min)	The teacher takes one tangram, turns towards the students so that s/he can be seen by everyone and says: Today we will learn how to do a tangram. A tangram is a puzzle that originated in China a long time ago. As you can see, this rectangle in my hand is actually made up of seven smaller pieces. They can be put together to get different shapes, such as animals, plants, objects and so on.

JIGSAW GROUP (8 min)

The rules to make a tangram are not difficult: you need to put together the puzzle by using all the pieces, the pieces should not overlap (the teacher demonstrates) and they must all connect (the teacher demonstrates). Now we will watch a video which explains a little better what making a tangram looks like.

The teacher plays the video (r3_uvodni_video.mp4).

EXPERT GROUP (10 min)









The teacher divides the students so that each member of a jigsaw group is part of a different expert group (R3 – ekspertna grupa). The teacher says:

Now we will learn how to make different shapes out of these tangrams, but I will not be teaching this today, you will be learning from each other. That is why you will leave your jigsaw groups and join your new expert groups.

The teacher then distributes the tangram instructions to the groups (r3_upute_za_ekspertne_grupe.pdf), so that each group gets a sheet of paper placed in the middle of their desk showing how the tangram is made. The teacher says:

Now you will learn how to make the pictures that you have been given. You will learn how to make them and you will become experts, and then you will share your knowledge with the other members of your jigsaw group when you return to it. This is not a competition, and it is important that all of you learn how to make the shape. This is a cooperative task. You should help each other learn and work on the task together. Practice to make the shape several times, to get better at making it.











Illustration for the expert group

Children learn how to make the shapes. The teacher goes around the class, checks if the expert groups are collaborating, and provides explanations and assistance if necessary. At the end of joint work in the expert groups, the teacher says:

EXPERT GROUP (10 min)

Now that you have finished learning, you will return to your jigsaw groups. But before that, I will give you small pictures of the shape that you learned to make. These pictures are just to help you, a "cheat sheet" to remember your shape if you need to. Each one of you can only look at your own cheat sheet.

The teacher distributes the cheat sheets (r3 salabahter.pdf).



Cheat sheets for the shapes (swan, mountains, heart, cat) in the jigsaw group

JIGSAW GROUP (20 min)





After returning to their jigsaw groups (R3 – matična grupa), the teacher distributes papers which contain black silhouettes of all the shapes that the students learned to make in their expert groups, and words for them in Croatian, Arabic and Farsi, as well as a photograph showing each word (r3_prikazi_tangram_likova_za_maticnu_grupu.pdf) and says:

Now, your task in the jigsaw group is to teach each other how to make these shapes. This is not a competition; you do not need to try to be the fastest – the only thing that matters is that each one of you shows the other members of your group how to make your shape and that you teach them how to make it. Remember, you can only look at your own cheat sheet.



Illustration for the jigsaw group

The teacher goes around the class, makes sure that everyone is working together, and provides assistance if necessary. Each child should successfully teach other members of their group how to make their shape, and to ensure the participation of the refugee child, it is particularly important for him/her to show to the others how to make his/her shape.

END OF THE LESSON (2 min)

At the end of the lesson the teacher congratulates each group on the successful completion of the task and encourages them to congratulate each other within their jigsaw groups (e.g., "high fives"). The teacher points out the importance of working together to achieve their final goal – everyone's contribution is important for the ultimate success.

Changes recommended on the basis of feedback after the intervention workshops:

- The cat and the swan have proved to be a bit more difficult than the mountain and the heart, so they can be replaced with simpler shapes that need to be prepared in advance.
- Refugee students were very happy to see that each shape illustration
 was accompanied by a caption in Croatian and their mother tongue. This
 prompted their Croatian peers to learn some words in their language and
 find out more about the culture of the refugee child.

Workshop 4: Music jigsaw

AIM: To collaborate, practice and synchronize rhythms, to become

acquainted with new sounds

DURATION: 1 period

MATERIALS: This workshop requires a song based on which students can

practice the rhythm. As part of the proposed intervention program, we used the audio recording of the song "The lion sleeps tonight/In the jungle", which was well received by both younger

and older students.

METHOD	
INTRODUCTION (2 min)	At the beginning of the lesson the teacher says: Today we will do another activity in small groups. I will first divide you into groups (if breakout into groups has been prepared ahead of time, the teacher reads the list of children for R4 – matična grupa). These are your jigsaw groups that you will return to at the end of the lesson.
JIGSAW GROUP (8 min)	Students should sit together with the other members of their group, and the groups should be in different parts of the classroom. The teacher plays the song and says: Today we will have a music workshop. First, I will play you a song, and later we will learn different movements to it. You will practice these movements in your expert groups that we will now break into (the teacher reads the lists for R4 – ekspertna grupa and assigns each expert group with its movement: tapping fingers, clapping, tapping the knees, and stomping their feet).
EXPERT GROUP (15 min)	The teacher: You will now work together in your expert groups to come up with a way to perform the song. I will play the song for you, and you need to work together to decide on the way to perform it. You should practice performing your task diligently, because you will have to show it to the members of your jigsaw group once you return to it!

EXPERT GROUP The teacher plays the first minute of the song, which should be repeated multiple times so that the children can practice their (15 min) performance. The teacher goes around the class to check if everyone is working together to come up with the performance, and provides explanations and assistance if necessary. Before playing the song the last time, the teacher says that it is the last time the song will be played. **JIGSAW GROUP** The teacher asks the students to return to their jigsaw groups and says: (15 min) Now your task in these groups is to learn how to perform this song together. I will play the song again three times, and you need to coordinate with each other. After that, each group will perform the song for the rest of the class. After they practice performing the song together three times, the groups present their performances to the class. After each performance, the teacher encourages group members to congratulate each other, for instance by giving each other high fives. **END OF THE** At the end of the lesson the teacher congratulates all groups on **LESSON** successfully completing the task and emphasizes the importance of working together for the final goal - everyone is important for the (2 min) ultimate success.

Changes recommended on the basis of feedback after the intervention workshops:

- This activity was a favorite among younger children, and they were very active and creative, while initial discomfort is to be expected with older children, and they need additional incentive to actively participate in this activity.
- Creativity in expert groups can be additionally boosted, for instance by encouraging a group to come up with different sounds that they can make by using paper (rustling, tearing), another group to come up with sounds and rhythms that they can make using pencils (tapping), the third group to come up with sounds that they can produce with their body as an instrument (clapping, stomping their feet), and the fourth group, for instance, by using their voice (whistling, singing, etc.). Once they return to the jigsaw group they pick different elements to create a combination that is "their own" reaction to the song.

Frequently asked questions

What follows are some situations that can arise in the classroom during cooperative learning workshops, followed by guidelines on how to respond in these situations. However, being teachers, you know your classes best and you should select an appropriate response taking into consideration these guidelines as well as the classroom climate.

What if the refugee child is absent when the workshop is supposed to take place?

If the refugee child is absent when the workshop is supposed to take place, the workshop should be postponed and conducted at the next opportunity. Keep in mind that the intervention is based on intergroup contact, and its aim is to improve attitudes towards members of another group, in this case refugee children. For the workshop to be conducted, the refugee child needs to be in attendance so that direct contact can be realized. However, also remember that this information is meant for the teacher, and not for the participants/students.

What if a host-society child is absent when the workshop was supposed to take place?

If one or more host-society children are absent on that day, the workshop should take place as planned.

What if the number of students is not divisible by the number of groups?

Adjust groups as needed: for instance, one student may be part of two jigsaw groups or two students from the same jigsaw group may go to a single expert group, and then work together to show their part of the task to the others once they return to their jigsaw group. This should not be the group with the refugee child.

What if a student or a group is slower or less successful?

It is important to stress to the entire group/class that speed is not important, and the activities are all about working together.

What if students within a group or in different groups start competing with each other?

You should emphasize once more that collaboration is the main aim of the activity, and that there should be no competition. One suggestion to eliminate competition in the Tower of Collaboration workshop is, for instance, to have each consecutive group start after a short delay – if the groups do not start at the same time, then it is impossible to compare which group was quickest in making the tower.