## Kinesthetic learning:

Towards a New Model in Education





# Co-funded by the European Union















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#### INTRODUCTION

This report outlines the results of KINESTHETIC LEARNING: TOWARDS A NEW MODEL IN EDUCATION project, hereafter called "KINNENEWMOD", executed in SPAIN, PORTUGAL, TÜRKIYE, AND HUNGARY. This project was implemented between 20th of December 2022 to 20th of December 2023.

In this report, we share our approach to a New Model in Education, knowledge and communication skills among children and educators. We present our outcomes of two year's journey during which we facilitated discussion and knowledge sharing about the advantage in learning by movement and how could we use in our lessons. Many children have taken advantage of this job.

The overlapping themes throughout the program are:

- learning by movement.
- creating new, innovative activities to teach by movement in different subjects: Science, English and Math.
- cooperation between educational institutions
- Transferring innovator and inclusive methods which assist in increasing primary school education quality.

We made this practical by changing and improving our educational narrative towards children and focus on their learning. In this project inclusive Education had been one of the main points because they are part of our society. We think and thus we have been able to verify that this education model allows the participation of all students.

In this report appear some ideas for teaching in a kinesthetic way like:

- Get outside spaces for class games, treasure hunts or observation.
- Using tactile resources and hands on activities
- Sign language can help to learn polite gestures from other countries.

- Turning learning activities into Games
- and getting pupils involved in designing, making prediction, and then carrying out their own practical experiments for hands on learning.

The Kinesthetic learning: Towards a New Model in Education project offered a vision and principles for the future of education too. We offer this type of education to develop children's curiosity, imagination, resilience and self-regulation: to teach them to respect and appreciate the ideas and perspectives of others which will develop their ability to become good people to contribute to a better world. We are happy and proud of the successes achieved by children and educators and embrace the learnings we gathered for future programs.

We hope you enjoy reading about our experiences, the outcomes and impact of this project.



## 1. PROGRAM

#### CONTEXT

The new trend in education is based on meaningful and multidisciplinary learning. This way of learning allows connections to be established between areas, apparently very different. During the Covid 19 pandemic, many students fell behind in their learning or spent too much time in front of a screen.

It was time to change habits and introduce movement as another way of learning. Learning by doing was an opportunity to apply in our centers.

We asked our students about the activities that for them were the most beneficial in their learning and we obtained as a result:

Visual predominant learning disposition 20%

Auditory-weighted learning disposition 15%

By doing experiencing /kinesthetic learning 65%

It has been determined that they are especially bore with online learning and therefore cannot concentrate enough.

On the other hand, most of our teachers were interested in learning and putting into practice this type of teaching by letting others do and with the confidence that this method could also benefit students who have learning difficulties or from unstructured families based on studies that come from neuroscience.

It is also stated by scientists that the best and fastest learning age of man is the primary school period. As a matter of fact, according to the research results of Dr. Bloom, 80% of what people learn takes place at the primary education level. According to the EU strategic vision, updating our strategies and providing permanent learning for all students who have learning difficulties are among our concrete goals. We want to create a new philosophy of education in inclusive and innovative teaching methods and to develop an understanding of permanent learning methods.

#### PRIORITIES AND TOPICS

Inclusion, promoting equality and non-discrimination.

Social responsibility of educational institutions

New learning and teaching methods and aproaches

#### **GOAL FOR STUDENTS**

Education with kinesthetic learning method will be provided to students with learning difficulties, together with their peers, depending on the conditions of Schools. They will be able to reveal their qualities such as talent, creativity, and leadership, and become individuals who are at peace with themselves and compatible with their will environment. Self-confidence will be increased in all students and they will love learning as their ability to move while learning is not restricted.

#### GOAL FOR SCHOOLS

With transnational collaborations, participating schools will have a positive impact on their institutional capacity development, innovation excellence, achieving their goals and becoming a model in their regions.

#### **OBJECTIVES:**

- Providing the use of kinesthetic learning in Maths teaching
- Providing the use of kinesthetic learning in Science Education lessons
- Providing the use of kinesthetic learning English lessons.
- Providing learning usage of tools and bodily movements methods which are being used in kinesthetic learning.
- Being sensitive about problems and needs which would happen in processes the Project contains.
- Providing developing practical English-speaking skills.
- Transferring innovator and inclusive methods which will assist in increasing Primary School Education quality.

 Providing greater security in the use of ICT in communication applications and providing a higher level of digital competence for teachers during project implementation and afterward.

#### TARGET GROUP:

Pre-Project visits were made, and views were exchanged on the sustainability of the project throughout the region. Public officials, policymakers, and regional education officials were invited to all activities of our project to be organized locally. They also support the "I move, I learn " days.

- Parents: School- Parent cooperation is important for all processes of schools.
- Students: Students are the indispensable main element of the project. Social inclusions were supported by giving priority to activities such as sports, music, and theatre to ensure that students with permanent learning difficulties like the school, increased their academic success, and reduced their unhappiness.
- Teachers: They were an important stakeholder in the successful progress and dissemination of project processes. Project teams assigned tasks to other teachers at the school, and they made to feel part of the project. Teachers participating in the activities transferred their knowledge and experiences to other teachers in the institution, and it ensured that the project become widespread throughout the school and that these experiences are used in the classroom environment.

#### TRAINING

To achieve all this, the group formed by the four participating partner schools proposed the following activities:

## A1: Educational Coaching in Kinesthetic Learning



Teachers representing the four schools participated in this first face-to-face meeting. It took place in Spain and there were a series of conferences on neuroeducation and how movement favors learning.

The workshops were:

LEARNING METHODS WHICH VARY FROM PERSON TO PERSON (academicians from the university gave the training about the subject)

- Kinesthetic Learning Process and the use of Nimonic technique (In the Nimonic technique, learning becomes easier with the help of songs or rhymes. In addition, gestures with hands can support recall of words or difficult events.)
- Efficient Studying and Learning Techniques in Kinesthetic Learning

GAME METHODS THAT IMPROVE CHILDREN'S LEARNING ANDPROBLEM-SOLVING SKILLS

- Mathematics-Science and movement
- English and movement

After workshops there were debate about the utility of these techniques with all the students, above all the special needs pupils.

Furthermore, in this first meeting, planning was made of what the project would be, and dates were agreed for the following mobilities. The eTwinning project was organized, and a Facebook group was created to disseminate the main activities of the project together with the webpage. The distribution of duties related with the webpage was made too.



New relationship was established between teachers from different countries and communication in English was improved.

The good practice booklet was left for Hungary, once more activities will be carried on.

Finally, the host school explained the educational system in Spain, and they were able to visit the three schools that make up the CRA Francisco Ibañez.







The rest of the partner countries also made a presentation talking about their educational system.

Presentations brought new knowledge about European countries:

SPANISH EDUCATION SYSTEM

PORTUGUESE EDUCATION SYSTEM

**HUNGARY EDUCATION SYSTEM** 

TURKISH EDUCATION SYSTEM

As an addition to the visit, several activities were also offered in which different traditions typical of the culture of the host country were shown.









## A2: Teaching mathematics with kinesthetic learning

From 26th to 30th September 2022, we received at Professor Ruy Luís Gomes Group of Schools the partners of the ERASMUS+ project "Kinenewmod: Towards a New Model in Education". Three students and three teachers from Hungary, five students and two teachers from Spain, two students and two teachers from Turkey were received for the three Portuguese teachers. Twenty-five Portuguese students participated in the activities that were developed.



All partners and their students visited our 4 schools to have an idea about educational practices in different schools of Europe, developing also foreign language practices. All activities promoted the student's motivation and gave teachers ideas to make lessons more fun.

On the first day, the different presentations were made by the students at



each school, a moment in which they took the opportunity to improve their communication skills in another language, understanding each other and making themselves understood.

All the activities provided equal opportunities in education. Innovative teaching methods and techniques in education was ensured by developing activities that promoted in students body intelligence coordination with kinesthetic learning. Movement and dance practices, geometric shape types, learning fractions and length measurements were carried out by using creative arts and movements for physical and motor development. The study was carried out in a classroom, the library, the Knowledge Pavilion and outdoors, determined by the host school, accompanied by the students and their teachers. Students worked with students from different cultures and cultural tolerance was provided. Language skills have improved as English was used in collaborative work with peers. They were allowed to discover mathematics with their body movements.





In this project we ensure with all the activities: socialization with other participants as well as the development of collaboration and teamwork skills, a positive attitude towards the European projects and EU values included in the European democracy and EU inclusion strategy.







There was also opportunity for all partners to learn about the historical and cultural richness of Portugal.



#### A3: Science Teaching with Kinesthetic Learning

During the week of September 25 to 29, the mobility took place in Turkey with 10 teachers and as many students from partner schools participating.

As will be done in all mobilities, we began with the presentations of the students from the different schools in which they will explain to the rest what their school is like and the city where they come from. It is a contact meeting where cultures are exchanged, and the students' communication skills are revealed.





We were able to visit some classes observing and participating in different subjects.









## Activities performed were:

- Movement and dance practices were carried out for the students' movement skills and the effects of Force and Power.
- Applications were made on Simple Electrical Circuits. Electricity was produced from lemon.







- An event was organized in the school garden to teach movement intelligence applications related to our Five Senses.





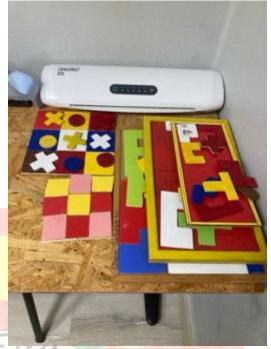


One of the days we were able to visit a center dedicated to science, where we used tools to create our own learning materials, discover how robots work and how to program them through different STEM activities, where learning is achieved by doing. In the afternoon in a sporting activity, we were able to experience the balance and behavior of forces.

















There was also time to learn a little more about the culture and traditions of the country. We visited a mosque, a museum of traditions of the city of Tarsus and we were able to enjoy the gastronomy of the place.





We were received by the person responsible for education in the area.

#### A4: Teaching English with kinesthetic learning

This time the activities took place at the Hungarian school. The theme revolved around kinesthetic learning applied to the area of English, but we were also able to learn about other activities related to music, science and They presented us a very interesting chess proposal in which movement is revealed as a means of learning.



Starting with Meeting the groups, school presentations, reviewing the activity content. Learning English words with Musical-Rhythmic learning with physical movements were done and English songs were performed with the participating teacher / students and the school's choir team.









We could enjoy with different Cultural Activities, from Hungarian Folklore.





To develop strategies that are sensitive to the personal needs of students while teaching such subjects in the classroom, Children's Day, Cartoon Characters, My Day, Doing Experiments, fun English activities were presented (with participating students).

English poetry reading activity was organized for the students determined by the host school and the participating students.

English lesson based on the movement skills of the host and guest students, learning activities were organized with movement, dance practices and dynamic movements on the subjects Jobs, My Clothes, Wheel Of Fortune, My Family, People I Love (with participating students).







"Chess palace" - introduction of this program, which was invented by Judit Polgár (the chess champion). Students' movement and memory are improved by this exercise. <a href="https://www.sakkpalota.hu/index.php/en">https://www.sakkpalota.hu/index.php/en</a>





The children's learning skills and memories were also improved by the games played on the chess board and other different games made them more cooperative.

Workshops were held for those with different physical, emotional, or learning disabilities. Sharing of different applications and strategies was provided.

As with other cultural activities and related to kinesthetic learning, we visited a science center and the house of music. We arrived at a medieval town where manipulative workshops were held, and we were able to see some historical areas of the city of Budapest.





MUSIC HOUSE





SCIENCE CENTER

VISEGARD (MEDIEVAL VILLAGE AND WORKSHOPS)











## 2. OUTPUTS

The main output of the project has been **BOOKLET OF KINESTHETIC LEARNING**.

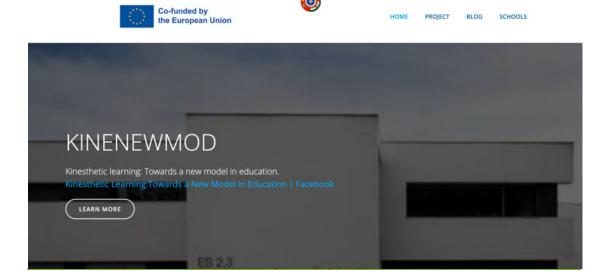
This is a catalog of activities on learning through movement classified by subject. Although the main areas considered have been English, Mathematics and Science, there is also a section with activities included in other areas because of the work of teachers who have learned from the training received in the development of the project and that we wanted to collect.

(You can find a link to it in the annexes section)BOOKLET

#### KINENEWMOD WEB

In the first face-to-face meeting, it was agreed to create the project's own website in which information on all the activities carried out and the evolution of the project itself has been collected. In addition, there is a section within the website in which the educational centers that form part of the project are presented with links to their own websites. In the blog tab you can see the project timeline as well.

https://kinenewmod.org/



In addition, there is a Facebook group more practice and it is used as a way of dissemination of the project and the different activities about kinesthetic learning applied in our schools.



## Kinesthetic Learning:Towards a New Model in Education

3 Grupo - Público · 243 miembros

#### FB del Proyecto

After each mobility, teachers disseminated what they had learnt to the rest of colleges. Here there are some documents prepared for this.

https://drive.google.com/file/d/183gbh8Y6d2g4fpa OizWrz2Si65v abU/view?usp=sharing

https://drive.google.com/file/d/1fLkE8Mml4o45eMFCOXnzDGcw6JqO1Z3D/view?usp =sharing

## Files to introduce each school and its country.(by students)

Spanish students who travelled to Portugal

https://drive.google.com/file/d/1uyjHOAJCTbyQ1kCGYKwN2ZmX6ODGmB-Y/view?usp=sharing

Spanish students who travelled to Hungary

https://drive.google.com/file/d/1uyjHOAJCTbyQ1kCGYKwN2ZmX6ODGmB-Y/view?usp=sharing

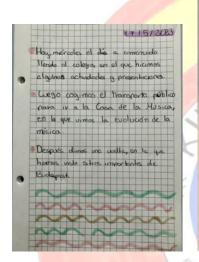
Spanish students who travelled to Turkiye

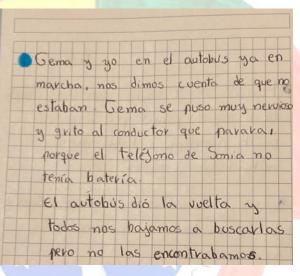
https://drive.google.com/file/d/1U14JM5hv1YK0lyjXn3DOaRHoQKdY8mXE/view?usp=s

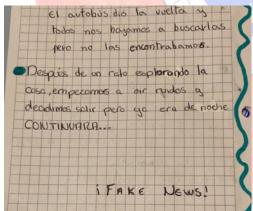
#### REPORTS DURING ACTIVITIES

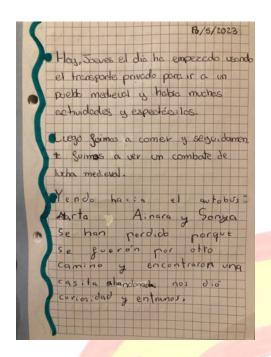
Here, some reports made by students in different meeting:

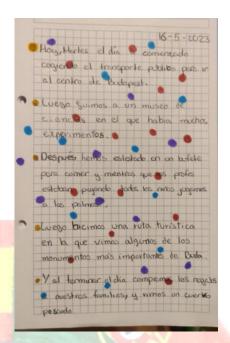
Spanish students invent a story about what happened during the day. In the end they recognize that it is fake news











Portuguese students wrote about their experiences in Türkiye:

In the morning we went to the monument of the prophet Daniel, then we went to a mosque to see how the Turks pray and see what the rest of the monument looks like. We went to the market and inside we saw the stores. Then we went to the Kubat Pasha Madrasa, which was half used for rest and the other half for learning during trade trips in the Ottoman Empire. After a walk we arrived at St. Paul Church where St. Paul grew up and lived, which is now a museum. Next we went to the national museum of Tarsus which had different ancient ages, for example Age of wood, copper, iron, etc. from the Turkish region.

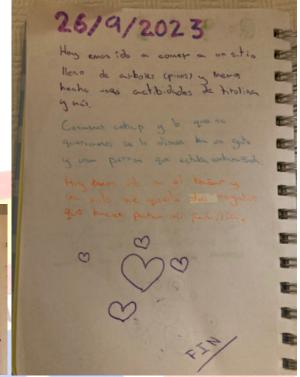
After riding the bus we arrived at the school where we saw the welcome ceremony. We had a traditional Turkish lunch and then we went to the English classroom where we talked and then played games, visited other classrooms and then went to the hotel to rest and go to dinner. This was our Monday.

Rafael, Duarte and Santiago, students from the Portuguese Team.





#### Diary of Spanish students:



Queido diario de Turquia... Estos días el ten molando mucho me lo estey pasando bien y estoy haciendo actividades guays pero las demesiadas notas son muy majos y amables. Hos ha desajunado, comido y canado muy rico y difrente. El desayuno en solado y casi no babia du l cersolo que en la comida habia bastante dulce y casi todo cha ba riquisino. Por ahora el erasmos mo ena gustando mucha.

#### **ERASMUS DAYS**

Each of the partner schools celebrated Erasmus days at their center. Here are some links where you can see the different activities carried out to publicize the Erasmus project as a whole and our The Kinesthetic learning project.

#### Spain:

Activity with students in a special day for all the CRA

escape room Día de Europa

Link on FB:

https://www.facebook.com/groups/2130156740469263/permalink/262629459 7522139/?mibextid=uJjRxr

Dissemination between teachers: viaje a Turquía.

#### Link on FB:

https://www.facebook.com/groups/2130156740469263/permalink/259511339 7306926/?mibextid=uJjRxr

#### Portugal:

Erasmus days was the time to publicize the activities carried out on the trips to Turkey and Hungary.

#### Hungary

#### Turkiye

In addition, a video summary of what the Kinesthetic learning activity in mathematics that was done in Portugal entailed was shared with the students.

#### Learning Maths

Furthermore, link on FB:

https://www.facebook.com/groups/2130156740469263/permalink/2638113613006904 /?mibextid=uJjRxr

https://www.facebook.com/groups/2130156740469263/permalink/2638589776292621/2mibextid=uJjRxr

#### Turkiye:

Link on FB:

https://www.facebook.com/groups/2130156740469263/permalink/250474030 6344236/?mibextid=uJjRxr

#### **Hugary:**

Erasmus day with children at school. The three students who took part in the journey talked about what they learnt and their experience. We applied the techniques learnt during the Turkish mobility.

Link on FB:

https://www.facebook.com/groups/2130156740469263/



As an example, they explained how to carry out one of the experiences carried out in Turkiye. All students were able to do it.

## 3. OUTCOMES

Projected outcomes of the surveys are the:

Many teachers wrote:

"I could improve myself professionally. This course was useful for me. I can use the learnt exercises in my lesson"

Also find reference to inclusion:

"It permitted me to use different methods and include all children with different ways of learning."

Others assure that their lessons are more effective,

100% of teachers acknowledge having learned how the brain works and the relationship with kinesthetic learning. How the learning obtained from movement is more permanent and what are the best options to implement it. Here, the result of student survey...

https://docs.google.com/spreadsheets/d/1oWIIEDDOCKNIa2PuYqx3QsXhhQyav6gedH9Hm2maprA/edit?usp=sharing

#### Of the Educators

#### Portugal:

"It will be developed more activities in our school because other teachers are interested in developing new strategies of learning by movement. Students gained and developed new skills, such as communicate with their bodies and be aware that we can learn different subjects with it."

The teachers of the Science Club at School used the knowledge shared in the teachers meeting and promoted activities that allowed the development of kinesthetic learning in their Club.

In this project it was assured for teachers and students in all the activities:

- socialization with other participants as well as the development of collaboration and teamwork skills,
- a positive attitude towards the European projects and EU values included in the European democracy and EU inclusion strategy.

 Students with special needs were integrated and included in all activities, being able to understand all tasks with the help of their teachers.

#### **Hungary:**

Colleagues participating in the project were able to learn more about the kinesthetic or movement-based learning style, based on sensations. During the transfer of knowledge, the educational board also became committed to the application of this learning style in the educational work. This is a great advantage in effective educational work since not only the visual and auditory channels are used during learning, but also the acquisition of knowledge is strengthened through movement learning.

#### Turkiye:

It helped students participate more in classes and increase their motivation.

The kinesthetic learning project offered teachers the opportunity to diversify in-class activities. Lessons were made more attractive with animated games, role-playing activities, and practical applications.

Kinesthetic learning activities encouraged collaboration among students.

The kinesthetic learning project enriched our school's educational approach and created a student-centered learning environment. This increased the institutional capacity of the school and strengthened its image.

#### Spain:

Teachers from different cultures and languages worked together to increase their competences in the project ang they gained profits related to kinesthetic learning. Now, there are more teachers in our schools with competences to prepare lessons plans in accordance with the 5E model consisting of introduction, exploration, explanation, deepening and evaluation steps.

We have achieved a positive impact on cultural and linguistic development with transnational cooperation.

The competence to work with entrepreneurship and team spirit has been increased and we have learned to use methods based on kinesthetic learning more effectively.

Finally, the sharing of the different educational systems has served to learn a little more about the European community as a whole, analyzing similarities and differences between countries, contributing to a general enrichment.

#### Of the Children

After analyzing the surveys given to the students, it can be concluded that:

#### A2: Kinesthetic learning in Maths (Portugal)

- 80% of the students acknowledge being able to communicate and participate in group activities in a very satisfactory way. 10% say they are satisfactorily and only 10% acknowledge that they are not satisfied with the communication and their participation in team activities, as they admit that they do not have a clear level of English.
- 100% agree on the need to improve their linguistic skills in another language and recognize that they are more motivated, after A2, to continue studying English.
- The biggest problem to work with the participants is language. Spanish students give the lowest punctuation about active participation due to shy and low self-confidence to speak in English.
- 70% agree that the activities developed were appropriate to the age of the participants and 100% considered activities consistent with kinesthetic learning although some of them activities were not enough to learn by movement.

The Spanish students acknowledge not having previously carried out preparatory activities before the meeting in Portugal. The reason is that this mobility took place in September, and they barely had time for it.

Furthermore, it so happens because of teachers who accompany the students being in different locations, since the Spanish school is a grouped rural school, made up of three schools located in three different towns.

#### A3: Kinesthetic learning in Science (Türkiye)

Most of them claim to be able to work as a team despite their lack of language skills. As proposals to improve team participation they propose:

- Treasure hunting can be done in groups, riddles can be asked, sometimes in Turkish and sometimes in English, and the questions can be answered as a group to spend more time.
- Working together more often
- Making crafts and attending dance parties.

The biggest problem to work with the participants keep on going language and one person think that activities were not appropriated to work together.

About activities, there are some different opinions:

While a group think they are fun and useful, another believe that they are shorts or extremely long and boring.

All students agree on the importance of the previous work with their classmates done before. Thus, they are more motivated and willing to learnt.

#### A4: Kinesthetic learning in English (Hungary)

One more time, students agree on their language skills should be better, and their proposals are more English classes and use body movement to learn languages. A student on the survey wrote:

"I had fun while performing the dance and song activity."

Complementary activities like Visit to Medieval Village and workshops and House of Music were very interesting for most of the students.

"All of them were very interesting for me, I cant choose the most interesting one"

Here, the result of student survey...

https://docs.google.com/spreadsheets/d/1vR6dkysj5WZWNAmfl1tX267v1deJgiuq2WL3rG3Ot1w/edit?usp=sharing

#### As a conclusion:

Our students who took part in the program talked with great pleasure to their fellow students about what they had learned in different countries. They passed

on the learned movement games to their peers. Children learn more easily through touch, movement, and practical experiences. Our students enjoy physical activities and creative crafts, this way developing their skills and abilities.

Democratic life, common values and active commitment were development among the students during mobilities. Knowing the culture of other countries in the European Union as well as their traditions demonstrates respect for diversity and inclusion.

Although digital transformation was not a main objective of the project, it has been used as a means of work and has contributed to better knowledge of its responsible use, both by teachers and students.

#### LEARNING AND SIGHTS

#### CONTINUATION WITH THE ETWINNING PROJECT

The most used thing for the preparation and organization of the project has been email and at specific times WhatsApp. Online meetings have also been held as a more effective way to reach an agreement when designing the work plan during mobility as well as to clarify doubts about things to consider when traveling to other countries, as well as how regarding travel and accommodation.

At the beginning of the project, the platform that was already being used was Etwinning, but the migration that was made to the platform disrupted all the work done and it was not until almost the end of 2023 that we were able to register again on it. Currently, we have started again, and we intend to continue using it in this case also with activities aimed at students.

## 4. ANEXS

#### BOOKLET

This link takes you to the document in which examples of activities carried out to put kinesthetic learning into practice have been collected.

Booklet of kinesthetic learning

## **ERASMUS CORNER**

One of the ways chosen to publicize the project and the culture of the countries that are part of it is to create the Erasmus corner. Not only is information shared about this project but also about what the Erasmus+program entails.

#### CRA FRANCISCO IBAÑEZ, IRIEPAL, SPAIN









After each mobility Erasmus Corner was growing.

## AGRUPAMENTO DE ESCOLAS PROFESSOR RUY LUIS GOMES PORTUGAL











This is the final performance of Erasmus Corner, in which Portuguese Students have worked collecting info about the different partners of the project.

#### KAZIM TSKIN ILKOKULU, TARSOS TURKIYE







MEDGYESSY FERENC NEMET NEMZETISEGI NYELVOKTAT ALTALANOS ISKOLA, HUNGARY

