# Didactic proposal with apps

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# INTRODUCTION

A didactic proposal is an elaboration of a planning or scheme designed to structure the objectives and contents of a subject. These objectives are attained with the posterior transmission of knowledge in class following a particular methodology or teaching approach. It also refers to the forms of assessment of that content.

The current didactic proposal is focused on the use of two applications for mobile devices in order to create a competence learning activity. It has been created taking into account the educational level, the curriculum areas and the basic competences on which the proposal is focused.

The activity will be carried out with 2$^{nd}$ grade students of Primary Education, that is 7-year-olds. We need to put ourselves in the context of a school that has some tablets available for the students in order to carry out interactive and dynamic activities.

# OBJECTIVES

As a teacher, I have settled three main objectives that should be completely achieved by the end of the proposal, which are:

- To listen and read English texts through the use of "Powernauts" app in order to improve their English skills while playing.
- To play a virtual game through the use of "Powernauts" app in order to review the math contents that they have recently learned.
- To share their opinions or concerns with their classmates through the use of "Lino" app in order to show that each student is interested in their classmates' worries or thoughts.

# DESCRIPTION OF THE APPS

Throughout this didactic proposal, students will be using two different apps. Firstly, they will play with an interactive game called "Powernauts", which will be helping them to review some mathematic contents in a funny way.

On the other hand, students will be also dealing with another app called "Lino", which consists of building a virtual mural where all the class can actively participate.

However, before having definitely chosen these apps, I deeply evaluated them considering the following aspects:

| ASPECTS | "POWERNAUTS" | "LINO" | OBSERVATIONS |
|---|---|---|---|
| Appropriate for the educational level | YES | YES | |
| Allows working on the basic competence | YES | YES | |
| Customizable settings and contents | YES and NO* | YES | *settings can be customized, but not the contents |
| Accessibility options | NO | YES | |
| Visual and functional design | YES | YES | |
| Automatically retrieves the task | YES* | YES | *each time you complete a level |
| It is fast and does not get blocked | YES | YES | |
| Has recently been updated | YES | YES | |
| Correct and reliable information | YES | YES | |
| Promotes creativity and imagination | YES | YES | |
| Collaboration and exchange of ideas | NO | YES* | *The application was chosen for this exact reason |
| Provides feedback | YES | NO* | *The teacher would do it |
| It is very intuitive | YES | YES | |
| Includes help tutorials | YES | YES | |

# DESCRIPTION OF THE ACTIVITY

This didactic proposal will be carried out during the second term by 2<sup>nd</sup> grade students. They will be working on the activity an hour a week during three weeks, that is saying, the activity will last 3 hours.

Firstly, students will be distributed in groups of four. Each of them will have a tablet to play with the previously explained app "Powernauts", which consists of a wide variety of mathematical activities that need to be solved in order to get to the next levels. Meanwhile the students are solving the problems, more doors get opened so that they can keep playing. The objective of the activity is to complete the levels in order to get to the next one. Each level has a different topic, such as counting, identifying the highest or the lowest number or adding and subtracting.

If a student does not know how to solve an activity, a window appears on the screen with an English explanation of what he/she needs to do to complete it successfully. Also, the text is read by one of the game's characters so that they can choose between listening to the explanation or reading it themselves.

If their doubt is not solved by the game's explanation, they can ask for help to their groupmates. If the whole group is still not able to do so, the teacher will be providing his/her help. The teacher will therefore check that all students are making a good and safe use of the tablets.

While playing with this app, students will be improving their English listening and reading skills, as well as reviewing the math content that they have learnt in ordinary lessons. Moreover, students will have to help each other if they have difficulties understanding a text or solving a math problem.

At the end of each session, students will have to write a post in the "Lino" app, which is a collaborative mural where all students will be able to read their classmates' opinions and concerns. Their short texts will be written in Catalan and they should include the doubts they have had during the session and how they solved them.

Finally, by the end of the third and last session, each student will have to write a final post for the collaborative mural. In it, they should explain what they have learned during the whole didactic proposal, which aspects they have liked or disliked and make a general conclusion.

**BASIC COMPETENCES**

Through the development of the present didactic proposal, some basic competences extracted from the "Curriculum of Primary Education" will be worked.

Firstly, students will be working on three mathematic competences, which are the translation of a problem in order to make a mathematic representation and use concepts, tools and mathematic strategies to solve it; ask questions and generate mathematic problems; and use with awareness digital tools, accordingly to the situation and interpreting the mathematic representations that they include.

On the other hand, they will be working on two foreign language competences, which are the application of strategies to obtain basic information and comprehend simple written texts or adapted to their everyday life, to the communication media and to scholar situations. Also, they will work on the use of consulting tools to access the comprehension of texts.

Finally, talking about Catalan, they will be practicing their written competences while creating short texts to conclude the activity.

**CONTENTS AND AREA CURRICULUMS**

MATHEMATICAL CONTENTS (Numeration and calculation)

- Comprehension of the numbers, their forms of representation and the numeration system:
  - o Comprehension and usage of the counting method with discreet quantities' meanings.
  - o Oral, graphic and written description of the counting and calculating process.
  - o Use of natural numbers to solve problems within significative contexts.
- Comprehension of the operations' meaning and the relationship between them:
  - o Different meanings of the adding and subtracting with natural numbers.
- Comprehension of the calculation and approximation's functionality:
  - o Use of the TAC to develop the calculation and to explore the numbers and the operations.

FOREIGN LANGUAGE CONTENTS (English)

- Listening and comprehension:
  - Recognition and identification of words and short texts accompanied by visual or audiovisual support.
  - Comprehension of simple working and performing instructions.

- Reading and comprehension:
  - Recognition and identification of words and short texts accompanied by visual or audiovisual support.
  - Interest and curiosity for looking and reading texts written in a foreign language.

- Knowledge of the language functioning and its learning process:
  - Observation of the relationship between a sound and its spelling.


CATALAN

- Listen and comprehend:
  - Show interest and respect for others' interventions.

- Write:
  - Composition of written texts, which can have image support, done in different situations.
  - Application of a reflective process when writing texts: think, write, revise.
  - Use of an informatic program to write short texts and edit them.

**INDICATORS OF COMPETENCY RICHNESS**

Designing the didactic proposal and its activities, some indicators of competency richness have been taken into account. Here you can check which ones have been considered and why.

- The activity makes it possible for the student to connect with his/her personal interests because they can choose and dress up their character freely.
- The activity makes it possible for the students to play an essentially active role as they are always in control of the actions that their character does while playing "Powernauts".
- The activity allows the final result of the activity to be open or different, as each student will post different final reflections/doubts/conclusions to the virtual mural in Lino.
- The activity allows building knowledge together, as each student can check their classmates' doubts and reflections. This way, knowledge is increased.
- The activity requires solving problem situations while playing "Powernauts", as well as while solving the doubts they can have throughout the activity. That second situation will be delt with when talking to their groupmates, asking the teacher or posting them in Lino.
- The activity allows the students to manage their own work progress, as they can constantly check the level they are in while playing.
- The activity requires a final reflection about the knowledge gained that needs to be posted in Lino.

**ASSESSMENT**

Last but not least, the assessment of this activity will take place by the end of it. As I have already mentioned in previous occasions, students will have to post a short text written by them where they explain the doubts they have had throughout the activity, how they solved them, what they have learned and what did they enjoy the most or the least of the whole activity. This way, the teacher will be able to check his/her students' learning.

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