

How much are you costing me!

Student Activities

Problematization

We usually receive a lot of publicity of phone companies which propose different offers, flat rate or based on consumption. These offers are usually aimed to increase the use of mobile phone.

How can we compare these so different offers?

What are we really interested in?

Each activity is carried out in groups. At the end of each activity there will be a discussion/debate in order to justify the decisions in solving problems and to allow comparison between students. Each activity must be recorded.

Activity

Task 1

Group discussion:

- How I use the mobile phone?
- What is indispensable to me? What is unnecessary?
- Comparison between the conclusions of each group and choice of the common variables to be checked.

Anticipated time: 1 hour in class.

Task 2

Research work: analysis and initial selection of the offers.

- What to assess?
- How?
- Why?
- What are the offers that I consider the most interesting?

Research teamwork to be carried out outside school hours within a week.

Discussion and presentation of the results: 1 hour in class.

Task 3

Theoretical analysis

- How can I compare two different offers?
- Can I model the offers to compare them graphically?
- What kind of functions can I use?

Anticipated time: 2 hours in class.

Individual processing/reflection work, within a week.

Task 4

Analysis of a simplified situation that does not reflect reality:

- Which result should I expect intuitively?
- How can I create the chart?
- How can I compare the results?
- What conclusion can I deduce?
- The obtained and the expected results are the same?

Anticipated time: 1 hour in class.

Task 5

Analysis of the real situation concerning the analyzed offers:

- Construction of the graph of functions relating the offers.
- Comparison between the offers of each group.

Anticipated time: 2 hours in class.

Task 6

Comparison between the offers of different groups.

- Can you determine which offer is absolutely the best?

Anticipated time: 1 hour in class.

Further research material

- 1) Data analysis and construction of charts using spreadsheet (EXCEL)
- 2) Comparison of functions of two variables.

PROFILES



Professional Reflection-Oriented Focus on Inquiry-based Learning and Education through Science

Developed by Teresa Carloni
Istituto di Istruzione Superiore "Corridoni Campana"
Osimo (AN), Italy



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Supporting and coordinating actions on innovative methods in science education: teacher training on inquiry based teaching methods on a large scale in Europe

