

M.^a ÁNGELES SALVADOR

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| Students' age | 14-15 years old |
| Students' language Level (CEFR) | B1 |
| Subject | Mathematic |
| Module topic | Statistics |
| Unit title | Data Handling |
| Comments | The subject is taught ten hundred percent in L2. Each part is eventually reviewed in English with written examples. |
| Unit description | The need of handling data to a better comprehension of whatever feature we are interesting in. |
| Goals | <ol style="list-style-type: none">1. Being able to a questionnaire in order to collect data we are interested in.2. Finding out how to tally, collect and group date.3. Calculating averages: mean, median and mode to have a better knowledge about the statistic variable we study, using frequency tables.4. Drawing the fittest statistic graphic depending on the type of variable we work with. |
| Contents | <ol style="list-style-type: none">1. Collecting data.<ol style="list-style-type: none">1. tallying, collecting and grouping data2. Questionnaires.3. Frequency: absolute, relative and cumulative frequency .Table of frequencies.2. Averages.<ol style="list-style-type: none">1. Mode. Concept and how to calculate it.2. Mean. Concept and how to calculate it.3. Median. Concept and how to calculate it.3. Representing data.<ol style="list-style-type: none">1. Pie charts and frequency diagrams.2. Line graphs, frequency polygons and stem and leaf diagrams.3. Inter-quartile range, cumulative frequency, box and whisker plots.4. Scatter diagrams. |
| Resources and materials | <ol style="list-style-type: none">1. Listening to the teacher's explanation.2. Carrying out a variety of activities.3. Reading graphics on the newspaper and getting |

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| | <p>out information such as type of variable studied, number of people who have a determined feature, some parameters..</p> |
| Teacher resources | <ol style="list-style-type: none"> 1. Mathematics course book. 2. Blackboard. 3. Computers connect to The Internet. 4. Newspapers. 5. Monolingual and bilingual dictionary. 6. Calculator. 7. Videos. |
| Teacher-produced or distributed materials | <p>Mathematics books, The Internet, newspapers.</p> |
| Assessment | <ol style="list-style-type: none"> 1. Individual participation in the lesson consisting of doing the activities in the classroom and the answers given to teacher's questions 25%. 2. Written test about how to calculate the average parameters and to draw the best graphic according to the variable. 50% 3. Presentation on a poster about whatever variable of whatever group they are interested in 50% |
| Timing | <p>Session 1: Presentation of topic:</p> <p>Teacher introduces statistic to the class, teaching new vocabulary related with the topic: population, different types of variables, absolute frequency , tables of frequency, and shows some examples.</p> <p>Students do some activities related with the new concepts, in pairs. For students who finish the activity quickly , do more activities using webs for Maths</p> <p>The activities are done on the blackboard by a pupil and supervised by the teacher.</p> |

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| | <p>Session 2: getting in the topic: h</p> <p>Teacher explains different types of graphic and shows how to draw them, doing some examples.</p> <p>Students draw the different types of graphic getting out data of the frequency tables given by the teacher and obtain information from graphics which are on the newspaper</p> <p>The activities are corrected on the blackboard.</p> <p>For students who finish the activity quickly , do more activities using webs for Maths</p> <p>Sesion-3 Calculating averages parameters such as mean ,median, mode</p> <p>Teacher introduces the meaning of the average parameters and teaches how to calculate them using a frequency table.</p> <p>Students do some activities related with the new concepts, in pairs. For students who finish the activity quickly , do more activities using webs for Maths</p> <p>Session 4 and 5 working</p> <p>First of all Choosing a group and a features of the group, second making a questionnaire in order to get out data related with the chosen features and carry out a statistic study which consists in drawing the graphic and calculating the mean, the mode and the median.</p> <p>Session 6 showing the results.</p> <p>Presenting the results of the survey on a poster to the rest of the group</p> |
| Bibliography | <p>http://www.bbc.co.uk/schools/gcsebitesize/maths/data/</p> <p>Course book by Pearson.</p> |