GRADING TABLES: what are they all about?

Starting Point

The Egracons project wants to adhere as closely as possible to the (general) instructions on how to prepare grading tables (based on frequency tables) as elaborated in the 2009 ECTS Users’ guide (a new version will be published in 2015). In Annex 3 of this guide it says on p. 43:

“To use the ECTS grading table the following steps should be taken:
1. Identify the reference group for which the grade distribution will be calculated (usually a degree programme, but in some cases a wider or different grouping of students such as a Faculty or sector -- e.g. Humanities).
2. Collect all grades awarded over a period of (at least) two academic years for the reference group identified.
3. Calculate the grade distribution in terms of percentages for the reference group.
4. Include the grading percentage table of your degree programme in every Transcript of Records/ Diploma Supplement.
5. For transfer, compare the percentage table of the other institution’s degree programme with your own. On the basis of this comparison individual grades can be converted.”

These principles have been taken over in the new ECTS Users’ Guide to be approved by the Bologna Process ministers in May 2015.

For the purpose of actually preparing Grading Tables only steps 1-3 are relevant, but all five steps are dealt with below for ease of reference, to see the consequences when the tables are used.

Grading tables can be made at various levels (e.g. per degree, per ISCED F-2013 code, per Faculty or for the whole HEI, even per course unit) and the data can be used for various policy-related purposes, but for the Egracons tool we need very specific grading tables (see separate step by step instructions).

Grading table versus Grading scale

A grading scale is the scale used to allocate grades in a HEI. Grading scales differ from country to country, and may differ from university to university or even from Faculty to Faculty. The Egracons project assumes they do not differ with a degree.

Some examples:

<table>
<thead>
<tr>
<th>Country</th>
<th>5,00 - 9,49</th>
<th>9,50 - 10,0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>18 - 30</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>10 - 20</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>6 - 10</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>5,00 - 5,49</td>
<td>5,50 - 5,99</td>
</tr>
<tr>
<td></td>
<td>6,00 - 6,49</td>
<td>6,50 - 6,99</td>
</tr>
<tr>
<td></td>
<td>7,00 - 7,49</td>
<td>7,50 - 7,99</td>
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<tr>
<td></td>
<td>8,00 - 8,49</td>
<td>8,50 - 8,99</td>
</tr>
<tr>
<td></td>
<td>9,00 - 9,49</td>
<td>9,50 - 10,0</td>
</tr>
</tbody>
</table>
Grading tables show the frequency distribution of the grades within a grading scale. Often an absolute and an accumulated frequency are provided.

An example from Italy:

<table>
<thead>
<tr>
<th></th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>30 lode</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>6.9%</td>
<td>1.9%</td>
<td>5.7%</td>
<td>2.3%</td>
<td>6.0%</td>
<td>2.7%</td>
<td>11.3%</td>
<td>8.2%</td>
<td>9.0%</td>
<td>11.8%</td>
<td>12.3%</td>
<td>0.5%</td>
<td>15.7%</td>
<td>5.7%</td>
</tr>
<tr>
<td>100%</td>
<td>93.1%</td>
<td>91.2%</td>
<td>85.5%</td>
<td>83.2%</td>
<td>77.2%</td>
<td>74.5%</td>
<td>63.2%</td>
<td>55%</td>
<td>46%</td>
<td>34.2%</td>
<td>21.9%</td>
<td>21.4%</td>
<td>5.7%</td>
<td></td>
</tr>
</tbody>
</table>

- The absolute frequency distribution of all the grades (from pass onwards) within the reference group e.g. 0.5% of the students obtain 29, 15.7% obtain 30 and 5.7% 30+ in a 18 to 30+ grading scale.
- The accumulated frequency distribution for the whole of the reference group, starting with 100% for the lowest pass grade. If e.g. 34.2% of the students obtain 28 or more (=accumulated) and 21.4% obtain 30 or 30+ it means a student belongs to the top 34.2% with 28 for a given course and to the top 21.4% with 30 or 30+. Of course the accumulated frequency can be easily derived from the absolute frequencies.

**Detailed characteristics of grading tables**

The following items provide a deeper insight into how grading tables work. The Egracons Grading Tables adhere to this format, but the concrete data needed for the Egracons project template are described separately in the [Grading Table Template instructions](#) on how to fill in the [Grading Table Template](#). Please find these documents on the website.

1. **Identification of the reference group for which the grade distribution will be calculated.**
   - Grading tables are basically frequency distribution tables for the grades (or marks) obtained by students within the reference group. They are made separately for the 2 cycles of HE: Ba, Ma, (PhD level should be done in theory, but in many universities no data are available) and for each degree or cluster of degrees. Egracons identifies the reference group by combining all degrees with the same ISCED F-2013 field of study code. Egracons. The ISCED field of study codes can be at the broad (2 digits), narrow (3 digits) or detailed levels (4 digits). Wherever possible, Egracons codes at the detailed level (4 digits), but we can use narrow codes if we add an 8. ([Read more here](#)).
   - Per degree, the group of students considered consists of all the students registered for that degree (all the years) in a given academic year (except the first year in the case of Bachelors). These data should be collected for the last 2 or 3 academic years. Note that we do not start out only from students who have graduated or even successful students per year but from all registered students who passed a number of exams. The fail marks are left out. This means that in a typical 3-year Bachelor reference group at a given moment all the students...
from the last and the preceding academic years are considered and for these 2 years all students who were then in their second or third year. Typically the data are collected in November or no later than the end of December, so that the grades from the last academic year will also be available. At most universities these data can be delivered at central level from the institution’s Student Information System.

- Egracons will combine the grading table data of the degree programmes (of the same cycle) that have the same ISCED code. Together they form a single reference group and therefore the basis of the grading table to be used for comparison. In order to make the conversions more consistent, the allocation of ISCED codes should be as homogeneous as possible across within a country (or educational system of a region). The ISCED codes already have to be used while reporting exchanges in the EC’s Mobility Tool as from 2013-2014, but a wider consensus will have to develop in actual practice around the allocation of the codes to the degrees. Egracons will take an initiative in this. It is also assumed that every course unit in a HEI inherits the ISCED code from the degree that it officially belongs to.

2. **All the passing grades/marks for all course units (recognized) in the degree(s) belonging to the identified reference group are collected for every student.**

- Fail grades/marks are therefore not included, and should not be indicated in the grading tables
- Only the final official grades/marks at the end of the academic years under consideration (i.e. after possible resits) are taken into account and the total number of successful exam results per grade should be calculated.
- Normally, the fact that we use (at least) 2 academic years and students from different years should guarantee that the statistically relevant minimum number of grades is reached. Institutions with low numbers of students per degree are advised to go back 3 years or even more.
- The results of visiting exchange students should NOT be included in the data, only those of officially registered students for a degree (national or international)
- No weighting should be applied in terms of the number of credits per course unit
- The only grade taken into consideration is the grade that corresponds to the course unit to which credits are assigned in the final Transcript of Records, even if it concerns a cluster of smaller sub-units that are each given separate grades. Such smaller sub-units are aggregated to a single grade.
- The tables will be re-calculated every year and uploaded to a common European database set up within the framework of the Egracons project. The web based conversion tool will make use of this common database to retrieve its data. Institutions are expected to do an annual update after the last academic year, so that the data always reflect the last 2 (or 3) years.

3. **Calculation of the grade distribution in terms of percentages for the reference group.**

   When displaying frequency tables, usually two kinds are shown: the absolute frequency for each grade and the accumulated frequency (see above).
How to use the grading tables in daily practice:

4. Include the grading percentage table in every ToR/DS.
   - It is to be determined whether the whole grading table or only the accumulated percentage (within the grading table) corresponding to each student’s result should be published in the DS. Alternative visualisations are possible (see below).

5. Compare the accumulated percentage with the corresponding grading table of the other institution and convert the individual grade.
   - The corresponding position of each student within the 2 reference groups (host – home) is compared by means of the grading tables. This is applied to each course unit grade. If a student’s grade belongs to the top 16% of his reference group we look up the mark with the most closely corresponding grade. If there is an overlap between several grades, the median is taken. The Egracons tool will enable such conversions to be done automatically.

How to proceed now?

Every HEI is now invited to start working out their own grading tables for inclusion in the Egracons Tool using the agreed Grading Table template (please follow this link for instructions, the template and an example) and to report the results to the project click here.

Concrete example of conversion

**Italy** *(Users’ Guide ECTS 2009, p. 43)*

<table>
<thead>
<tr>
<th></th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>30 lode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.9%</td>
<td>1.9%</td>
<td>5.7%</td>
<td>2.3%</td>
<td>6.0%</td>
<td>2.7%</td>
<td>11.3%</td>
<td>8.2%</td>
<td>9.0%</td>
<td>11.8%</td>
<td>12.3%</td>
<td>0.5%</td>
<td>15.7%</td>
<td>5.7%</td>
</tr>
<tr>
<td>100*</td>
<td>93.1</td>
<td>91.2</td>
<td>85.5</td>
<td>83.2</td>
<td>77.2</td>
<td>74.5</td>
<td>63.2</td>
<td>55</td>
<td>46</td>
<td>34.2</td>
<td>21.9</td>
<td>21.4</td>
<td>5.7</td>
<td></td>
</tr>
</tbody>
</table>

**France** *(table Université de Rouen, all disciplines, all levels)*

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34.79%</td>
<td>18.59%</td>
<td>18.45%</td>
<td>12.05%</td>
<td>9.46%</td>
<td>3.65%</td>
<td>2.30%</td>
<td>0.43%</td>
<td>0.22%</td>
<td>0.06%</td>
<td>0%</td>
</tr>
<tr>
<td>100</td>
<td>65,21</td>
<td>46,62</td>
<td>28,17</td>
<td>16,12</td>
<td>6,66</td>
<td>3,01</td>
<td>0,71</td>
<td>0,28</td>
<td>0,06</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*Accumulated percentage in red
With a mark of 27 the student in Italy belongs to the top 46% of his reference group. If we look at the grades of the corresponding top 46% in France, we arrive at a converted grade of 12.

**How will conversion be illustrated in the Egracons conversion tool?**

**Graphic representation of grading tables**

Grading tables can be represented as frequency tables (see above) but also graphically. When doing so, institutions are invited to represent the grades on the horizontal axis and the percentages on the vertical axis. The following is an example.

![Grading Distributions Comparison](image)

Another visual representation (probably clearer) is the following:
A third representation that may be more suited to the ToR is to condense the grading table to 3 percentages:

Here the mark of the student (e.g. 14/20) is related to those that have a higher mark (9%), those that have the same mark (10%) and those that have a lower mark (81%). In this example it is clear that with 14/20 the students belongs to the top 19% of his cohort (9% + 10%)

**Final Remarks**

The main aim of the Egracons project is to develop an online, web based Egracons tool that will allow direct and automatic conversions of exchange student grades on the basis of annual, statistically-based grading tables supplied by individual institutions as part of an overall database.
But it also aims to build up a wide-spread awareness and common understanding of the different grading systems in Europe and to enable an accurate interpretation of grades (or marks) given abroad. In order to be able to reach this objective the project is mapping grading practices in countries and individual institutions on the basis of an extensive questionnaire filled in by institutions all over Europe leading to a full description of the grading systems in use in Europe. The so-called country reports describe grading practices in all European countries with HEIs that take part in Erasmus mobility, and probably beyond that area at a later stage. HEIs will take part on a voluntary basis. Detailed explanations of distinctive features and grading cultures per country and institution are provided, including the range of grades, condoning, the average distribution of grades, required overall averages or not, specific bands within grades, differences among disciplines, etc. This allows for a better interpretation of each grading system and hence of the grades suggested by the online tool. For some countries a first draft is already available. We invite everyone to help us fine tune the info by sending us your comments.

The questionnaire is also still open for institutions who have not supplied information yet, preferably at the institutional level.