**Supplementary Tables S6- S11**

**Table S6.** The probability distribution of the collective evaluation values for students.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **Criteria** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* |  | 0.0 | 0.4 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
|  | 0.1 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | 0.3 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| *A2* |  | 0.0 | 0.0 | 0.4 | 0.4 | 0.2 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.3 | 0.7 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.3 | 0.7 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.3 | 0.3 | 0.4 | 0.0 | 0.0 |
|  | 0.0 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| *A3* |  | 0.0 | 0.0 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.0 | 0.6 | 0.4 | 0.0 | 0.0 |
|  | 0.0 | 0.4 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.0 | 0.6 | 0.4 | 0.0 | 0.0 |
|  | 0.0 | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| *A4* |  | 0.0 | 0.4 | 0.2 | 0.4 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.2 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.3 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 |
|  | 0.0 | 0.0 | 0.7 | 0.3 | 0.0 | 0.0 | 0.0 |

**Table S7.** The exceedance distribution function values of studentsunder five criteria and six linguistic scales.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **EDFij** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* | *EDF11* | 0.0 | 0.4 | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF12* | 0.1 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF13* | 0.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF14* | 0.5 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF5* | 0.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A2* | *EDF21* | 0.0 | 0.0 | 0.4 | 0.8 | 1.0 | 1.0 | 1.0 |
| *EDF22* | 0.0 | 0.0 | 0.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF23* | 0.0 | 0.0 | 0.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF24* | 0.0 | 0.0 | 0.3 | 0.6 | 1.0 | 1.0 | 1.0 |
| *EDF25* | 0.0 | 0.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A3* | *EDF31* | 0.0 | 0.0 | 0.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF32* | 0.0 | 0.0 | 0.0 | 0.6 | 1.0 | 1.0 | 1.0 |
| *EDF33* | 0.0 | 0.4 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF34* | 0.0 | 0.0 | 0.0 | 0.6 | 1.0 | 1.0 | 1.0 |
| *EDF35* | 0.0 | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A4* | *EDF41* | 0.0 | 0.4 | 0.6 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF42* | 0.0 | 0.0 | 0.5 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF43* | 0.0 | 0.2 | 0.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF44* | 0.0 | 0.3 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| *EDF45* | 0.0 | 0.0 | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 |

**Table S8.** The  largest value of  and its corresponding ****.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **u** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* | *u*=1 | 0.5/C4 | 1.0/C3 | 1.0/C2 | 1.0/C1 | 1.0/C1 | 1.0/C1 | 1.0/C1 |
| *u*=2 | 0.3/C3 | 0.9/C2 | 1.0/C3 | 1.0/C2 | 1.0/C2 | 1.0/C2 | 1.0/C2 |
| *u*=3 | 0.1/C2 | 0.9/C4 | 1.0/C4 | 1.0/C3 | 1.0/C3 | 1.0/C3 | 1.0/C3 |
| *u*=4 | 0.0/C1 | 0.9/C5 | 1.0/C5 | 1.0/C4 | 1.0/C4 | 1.0/C4 | 1.0/C4 |
| *u*=5 | 0.0/C5 | 0.4/C1 | 0.7/C1 | 1.0/C5 | 1.0/C5 | 1.0/C5 | 1.0/C5 |
| *A2* | *u*=1 | 0.0/C1 | 0.2/C5 | 1.0/C5 | 1.0/C2 | 1.0/C1 | 1.0/C1 | 1.0/C1 |
| *u*=2 | 0.0/C2 | 0.0/C1 | 0.4/C1 | 1.0/C3 | 1.0/C2 | 1.0/C2 | 1.0/C2 |
| *u*=3 | 0.0/C3 | 0.0/C2 | 0.3/C2 | 1.0/C5 | 1.0/C3 | 1.0/C3 | 1.0/C3 |
| *u*=4 | 0.0/C4 | 0.0/C3 | 0.3/C3 | 0.8/C1 | 1.0/C4 | 1.0/C4 | 1.0/C4 |
| *u*=5 | 0.0/C5 | 0.0/C4 | 0.3/C4 | 0.6/C4 | 1.0/C5 | 1.0/C5 | 1.0/C5 |
| *A3* | *u*=1 | 0.0/C1 | 0.8/C5 | 1.0/C5 | 1.0/C1 | 1.0/C1 | 1.0/C1 | 1.0/C1 |
| *u*=2 | 0.0/C2 | 0.4/C3 | 0.9/C3 | 1.0/C3 | 1.0/C2 | 1.0/C2 | 1.0/C2 |
| *u*=3 | 0.0/C3 | 0.0/C1 | 0.2/C1 | 1.0/C5 | 1.0/C3 | 1.0/C3 | 1.0/C3 |
| *u*=4 | 0.0/C4 | 0.0/C2 | 0.0/C2 | 0.6/C2 | 1.0/C4 | 1.0/C4 | 1.0/C4 |
| *u*=5 | 0.0/C5 | 0.0/C4 | 0.0/C4 | 0.6/C4 | 1.0/C5 | 1.0/C5 | 1.0/C5 |
| *A4* | *u*=1 | 0.0/C1 | 0.4/C1 | 0.9/C4 | 1.0/C1 | 1.0/C1 | 1.0/C1 | 1.0/C1 |
| *u*=2 | 0.0/C2 | 0.3/C4 | 0.7/C5 | 1.0/C2 | 1.0/C2 | 1.0/C2 | 1.0/C2 |
| *u*=3 | 0.0/C3 | 0.2/C3 | 0.6/C1 | 1.0/C3 | 1.0/C3 | 1.0/C3 | 1.0/C3 |
| *u*=4 | 0.0/C4 | 0.0/C2 | 0.5/C2 | 1.0/C4 | 1.0/C4 | 1.0/C4 | 1.0/C4 |
| *u*=5 | 0.0/C5 | 0.0/C5 | 0.3/C3 | 1.0/C5 | 1.0/C5 | 1.0/C5 | 1.0/C5 |

**Table S9.** The criteria subsets  with the largest to  largest value of .

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **u** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* | *u*=1 |  |  |  |  |  |  |  |
| *u*=2 |  |  |  |  |  |  |  |
| *u*=3 |  |  |  |  |  |  |  |
| *u*=4 |  |  |  |  |  |  |  |
| *u*=5 |  |  |  |  |  |  |  |
| *A2* | *u*=1 |  |  |  |  |  |  |  |
| *u*=2 |  |  |  |  |  |  |  |
| *u*=3 |  |  |  |  |  |  |  |
| *u*=4 |  |  |  |  |  |  |  |
| *u*=5 |  |  |  |  |  |  |  |
| *A3* | *u*=1 |  |  |  |  |  |  |  |
| *u*=2 |  |  |  |  |  |  |  |
| *u*=3 |  |  |  |  |  |  |  |
| *u*=4 |  |  |  |  |  |  |  |
| *u*=5 |  |  |  |  |  |  |  |
| *A4* | *u*=1 |  |  |  |  |  |  |  |
| *u*=2 |  |  |  |  |  |  |  |
| *u*=3 |  |  |  |  |  |  |  |
| *u*=4 |  |  |  |  |  |  |  |
| *u*=5 |  |  |  |  |  |  |  |

**Table S10.** The fuzzy measures of the criteria set  for students under each linguistic scale.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **u** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* | *u*=1 | 0.7 | 0.8 | 0.6 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=3 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=4 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A2* | *u*=1 | 0.9 | 0.4 | 0.4 | 0.6 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 |
| *u*=3 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 |
| *u*=4 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A3* | *u*=1 | 0.9 | 0.4 | 0.4 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=3 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=4 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| *A4* | *u*=1 | 0.9 | 0.9 | 0.7 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.9 | 0.9 | 0.7 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=3 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=4 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

**Table S11.** The weight of the criterion with the  largest value of .

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Students** | **u** | **s6** | **s5** | **s4** | **s3** | **s2** | **s1** | **s0** |
| *A1* | *u*=1 | 0.7 | 0.8 | 0.6 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=5 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| *A2* | *u*=1 | 0.9 | 0.4 | 0.4 | 0.6 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.0 | 0.5 | 0.5 | 0.2 | 0.0 | 0.0 | 0.0 |
| *u*=3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| *u*=5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| *A3* | *u*=1 | 0.9 | 0.4 | 0.4 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.0 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=3 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| *A4* | *u*=1 | 0.9 | 0.9 | 0.7 | 0.9 | 0.9 | 0.9 | 0.9 |
| *u*=2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=3 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *u*=5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |