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Methodological aspects of implementation and interpretation

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Student evaluation of teaching surveys in a global context: methodological aspects of implementation and interpretation

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Introduction

Student evaluation of teaching (SET) surveys are used at almost all universities worldwide. Despite its original formative purpose of improving teaching effectiveness, SET is increasingly used for summative purposes (i.e., faculty hiring and promotion). The latter can be very problematic and exposes SET to criticism as there is a growing number of scholars who claim that SET measures student satisfaction rather than teaching effectiveness. Some studies even claim that SET scores correlate negatively with teaching effectiveness.

Besides issues of validity (i.e., whether SET really measures what it is supposed to measure), SET faces many other methodological problems. One of them is the lack of standardised methodological recommendations for the implementation and interpretation of results. This issue was the motivation for this study, which examines the prevailing approaches to the implementation and interpretation of SET surveys among the most reputable higher education institutions worldwide (hereafter referred to as *universities*).

Topics

The study addresses two main issues. The first is the methodological aspects of implementation, including (a) the timing of implementation (before or after final exams), (b) the obligation of implementation and participation, (c) the degree of standardisation, (d) the mode of implementation (online or face-to-face), and (e) the specifics of the measurement scales used for the questions. The second is the approach to interpretation, including (a) criterion-referenced interpretations, in which results are compared to predefined performance standards, and (b) norm-referenced interpretations, in which the interpretation of a particular teacher's results depends on the results of other teachers. Within each type, we are interested in benchmarks used for excellent scores (which may be rewarded formally or informally), positive scores, low

scores, and critically low scores (where formal action is required). Benchmark and norm scores refer to the average teacher scores in a given course.

Methodology

We conducted an online survey targeting 1400 top universities according to the QS World University Rankings (2020, 2022) and ShanghaiRanking Consultancy (2019, 2021). Invitations were sent to the email addresses of university staff responsible for the SET process or quality assurance. After sending an invitation email and a reminder email, we received 232 complete responses, a response rate of 17% (RR2 according to [AAPOR standards](#)). The questionnaire, previously tested in our [2021 pilot study](#), covered the aforementioned topics on the implementation and interpretation of SET. The survey was active through May and June 2022.

Results

We can highlight the following findings (see Appendix for details):

1. Findings on the implementation of SET

- SET is implemented at almost all (97%) of the universities.
- Implementation is usually mandatory for teachers (83% of universities) but not for students (23%); of the remaining 77% of universities, not a single one forces students to explicitly decline participation.
- SET questionnaires are generally standardised at the university level (81%).
- Incentives for participation are rare (15%), with early grade release mentioned most often, followed by lottery tickets, bookstore points, hours free of classes, and monetary incentives. Also mentioned are student credit points, discounts on university merchandise, and priority enrolment for the next semester.
- Response rates are relatively low. When participation is not mandatory, response rates range from 20% to 40%.
- A five-point scale (1–5) is used most frequently (73%) for ordinal scale questions, followed by a 1–4 scale. In 92% of cases, the scale is aligned from the lowest to the highest value, while in 8% of cases, the value 1 denotes the highest value (positive evaluation).
- Invitations to students are most frequently sent via email (79%), through the institution's information system (66%), and live in the classroom (58%).

- Online surveys have almost completely replaced paper questionnaires; online completion is the only option at 93% of universities, and it dominates even among the remaining 7% where paper surveys are still an option.
- SET surveys are more likely to be administered out-of-class on students' own time (45%) than in-class (6%). The majority of universities allow both options (49%), though this often depends on the teacher's decision.
- SET surveys are mostly conducted before exams (77%) rather than after exams (17%). A few universities (6%) conduct SET surveys both before and after exams.
- Half of the universities (46%) collect additional feedback through a separate mid-semester survey, of which 41% also provide technical support for mid-semester surveys.
- Pre-exam SET surveys are usually opened toward the end of classes (79%) and close before exams (78%). In contrast, post-exam SET surveys generally open before students receive their exam grades (67%) and generally stay open (60%) after students have already received a grade.

2. Findings on the interpretation and accessibility of SET results

- Most of the universities (82%) have some guidelines for SET interpretation, and 57% have formally written them down.
- Nearly half of the universities use criterion-referenced interpretations (46%) while only slightly fewer use norms (41%). Both approaches (criteria and norms) are used at 26% of universities.
- For criterion-referenced interpretations, we identified four benchmarks for interpreting average teacher scores based on an ordinal scale of 1–5¹:
 - 2.7 is the mean for a critically low SET score at which some formal action is taken,
 - scores below 3.2 are interpreted as low,
 - positive scores start at 3.9, and
 - excellent scores start at 4.6.
- For norm-referenced interpretations, we found the following:
 - the bottom 22% (on average) of SET scores are critically low,
 - the bottom 40% are low,
 - the top 41% are positive, and
 - the top 19% of scores are excellent.

¹ The benchmark values of universities that do not use 1–5 scale have been transformed to a 1–5 scale.

- In terms of accessibility, in most cases, SET scores aren't completely closed (66%) and are accessible not only to the management and the evaluated teacher, but also to other teachers (29%), to the students enrolled in a course (22%), and even completely public (13%).
- However, comments on open-ended questions are sometimes available to the relevant teacher only (19% of universities).

3. Comparing the implementation and interpretation of SET by university characteristics

In certain aspects, the SET process is highly standardised among the most reputable universities, yet some statistically significant differences are identifiable (see Appendix for data analysis procedures).

- Asian SET systems differ significantly from European and North American systems:
 - A majority of Asian universities require student participation (58%); mandatory participation is much lower for universities in Europe (19%) and North America (4%).
 - Asian universities have the highest SET response rates (49%) even when participation is not mandatory. The average response rates in North America and Europe are 47% and 33%, respectively.
 - In Asia, students are rarely invited to participate in SET live (26%) compared to in Europe (61%) and North America (63%).
 - In Asia, post-exam SET surveys always close before grades are received, while elsewhere they close mostly after grades are received (73% in Europe, 80% in North America).
 - The criterion-referenced interpretation is used more often in Asia (35%) than in North America (7%), with Asia having significantly stricter benchmarks.
 - In Asia, a score of less than 3.2 is interpreted as critically low, whereas this is 2.7 in North America and 2.5 in Europe). The low benchmark is 3.8, 3.2, and 3.0 in Asia, North America, and Europe, respectively.
 - In Asia, teachers' average scores are fully closed half the time (50%), while in Europe they are the least closed (29%).
- University size also generates some differences:
 - Smaller universities with up to 20 university divisions administer mid-semester SET surveys more often (53%) than universities with more than 20 divisions (38%).
 - Universities with up to 20 divisions completely close their SET scores less frequently (27%) than universities with more than 20 divisions (50%) and more often leave them accessible to other teachers and students enrolled in the course.

- Universities with a lower number of enrolled students (up to 10,000) have a higher SET response rate (53%) than those with more students (universities with 10,001 to 20,000 students have a 33% response rate and those with more than 20,000 students have a 37% response rate).
- However, universities with a higher number of students (over 20,000) are more flexible in terms of completion location as students can generally choose to complete SET surveys in class or out of class (55%). In contrast, SET is generally completed out of class (67%) at smaller universities (up to 10,000 students).
- Science-focused universities (STEM) have stricter interpretations than both social science universities (SSH) and those with both study programme types:
 - STEM universities have higher benchmarks for positive (4.2) and excellent scores (4.8) as well as for excellent percentiles (92) than those with both study programme types where these values are 3.8, 4.5, and 77, respectively.
 - STEM universities use criterion-referenced interpretations more (70%) than those with both programme types (45%). Those interpretations are never used at SSH universities.
 - SSH universities are more likely to use general interpretation guidelines (75%) than STEM universities (17%).
- At universities with an academy of arts, SET is usually completed both in class and out of class (61%), while at universities without an academy of arts SET is usually completed out of class (55%).
- At universities with religious studies, average SET scores are less accessible to the public (5%) than at those without religious studies (17%).
- Universities with medical schools have average SET scores available to other teachers less often (25%) than those without (47%).
- Students' participation is more often obligatory at private universities (32%) than at public ones (16%).

Discussion

Two contrasting takeaways can be identified from these results. On the one hand, there is considerable variation with respect to the implementation of SET, particularly regarding mandatory participation, timing, location of completion, invitation methods, response rate, and the accessibility of the results. On the other hand, the benchmark values for the interpretation of SET scores seem to be relatively standardised. This supports the conclusion that our

estimates for benchmark values (e.g., 3.9 for a positive score on a 1–5 scale) are robust, and they are also consistent with the benchmarks from our previous [pilot study](#).

Certain variations in results arise from the university characteristics. Asian universities show the greatest difference from the whole, indicating that SET is much more important and stricter in Asia than in the West.

The responses to this survey were generally of high quality with valuable comments provided for open questions. The response rate of 17% seems low at first glance; however, organisational survey response rates are commonly in the single digits. A more detailed analysis will reveal the eventual direction of nonresponse error.

Appendix

The appendix contains six contingency tables showing the proportions (%) and average values for various aspects of SET implementation and interpretation according to the characteristics of the universities studied². The cells with statistically significant differences (analysis of variance or chi-square test) are marked

- **dark blue** if the effects are significant at 5%,
- **light blue** if the effects are significant at 10%, and
- **grey** if the effects are significant at 5%, but more than 20% of the cells have theoretical frequencies below 5.

² Note that this study was conducted on a population (i.e., the 1400 top universities), not a sample. In principle, apart from nonresponse, statistical inference is not needed. Nevertheless, we behave here as if the units are a sample from a large (hypothetical) population or a realization of a corresponding superpopulation model. From there we can apply standard statistical inference procedures. This also accounts for nonresponses where we assume that the respondents are a random subsample of eligible units. Of course, these are simplifications for preliminary results, with more detailed methodological elaboration to follow.

Table 1. Proportions (%) for categories of variables within SET implementation, standardization, participation, incentives, and scales (n = 232).

| Variables | n | Implementation | | | Standardization | | | % Mandatory participation | % Incentives | Ordinal scale | |
|---------------------------------------|-----|----------------|-----------------|------|-----------------|-----------|--------|---------------------------|--------------|---------------|---------|
| | | % Mandatory | % Non-mandatory | % No | % University | % Faculty | % None | | | % 1-5 | % Other |
| Continent | | | | | | | | | | | |
| Asia | 20 | 90 | 5 | 5 | 95 | 5 | 0 | 58 | 16 | 63 | 37 |
| Europe | 101 | 81 | 16 | 3 | 80 | 16 | 4 | 19 | 14 | 75 | 25 |
| North America | 55 | 87 | 13 | 0 | 69 | 26 | 6 | 4 | 22 | 73 | 28 |
| University type | | | | | | | | | | | |
| Public | 158 | 84 | 14 | 3 | 80 | 17 | 3 | 16 | 17 | 74 | 26 |
| Private | 26 | 89 | 12 | 0 | 81 | 15 | 4 | 32 | 16 | 76 | 24 |
| Number of students enrolled | | | | | | | | | | | |
| Up to 10,000 | 37 | 89 | 8 | 3 | 92 | 8 | 0 | 28 | 14 | 82 | 18 |
| 10,001 to 20,000 | 59 | 85 | 14 | 2 | 81 | 14 | 5 | 13 | 19 | 80 | 20 |
| 20,001 and more | 90 | 81 | 17 | 2 | 72 | 23 | 5 | 18 | 17 | 67 | 33 |
| Number of university divisions | | | | | | | | | | | |
| Up to 20 | 101 | 82 | 15 | 3 | 78 | 19 | 3 | 22 | 15 | 75 | 25 |
| More than 20 | 85 | 86 | 13 | 1 | 80 | 16 | 5 | 15 | 19 | 73 | 27 |
| Predominant study programmes | | | | | | | | | | | |
| Sciences | 31 | 90 | 3 | 7 | 93 | 7 | 0 | 21 | 17 | 85 | 15 |
| Social sciences | 12 | 92 | 8 | 0 | 83 | 17 | 0 | 25 | 8 | 67 | 33 |
| Both | 140 | 81 | 17 | 1 | 76 | 19 | 5 | 18 | 17 | 73 | 27 |
| Theology studies | | | | | | | | | | | |
| No | 90 | 86 | 11 | 3 | 83 | 13 | 5 | 19 | 21 | 70 | 30 |
| Yes | 57 | 75 | 23 | 2 | 66 | 30 | 4 | 13 | 14 | 71 | 29 |
| Medicine | | | | | | | | | | | |
| No | 42 | 88 | 10 | 2 | 68 | 29 | 2 | 15 | 13 | 76 | 24 |
| Yes | 105 | 79 | 18 | 3 | 79 | 16 | 5 | 18 | 20 | 68 | 32 |
| Academy of arts | | | | | | | | | | | |
| No | 48 | 85 | 10 | 4 | 83 | 15 | 2 | 18 | 18 | 64 | 36 |
| Yes | 99 | 80 | 18 | 2 | 73 | 22 | 5 | 17 | 18 | 73 | 27 |
| Total | 232 | 83 | 14 | 3 | 81 | 16 | 4 | 23 | 15 | 73 | 27 |

Table 2. Proportions (%) for categories of variables within the SET interpretation guidelines and types, implementation mode, and location of completion (n = 232).

| Variables | n | Interpretation guidelines | | | Interpretation type | | | | Mode | | Location | | |
|---------------------------------------|------------|---------------------------|------------|-----------|---------------------|-----------|-----------|-----------|-----------|--------------------|----------------|------------|-----------|
| | | % Formal | % Informal | % None | % Criterion | % Norm | % Both | % General | % Online | % Online and paper | % Out-of-class | % In-class | % Both |
| Continent | | | | | | | | | | | | | |
| Asia | 19 | 63 | 26 | 11 | 35 | 6 | 24 | 35 | 100 | 0 | 67 | 6 | 28 |
| Europe | 92 | 57 | 25 | 18 | 26 | 17 | 25 | 32 | 91 | 9 | 47 | 9 | 45 |
| North America | 52 | 57 | 26 | 18 | 7 | 12 | 21 | 60 | 94 | 6 | 31 | 2 | 67 |
| University type | | | | | | | | | | | | | |
| Public | 146 | 55 | 25 | 20 | 21 | 14 | 25 | 40 | 93 | 7 | 43 | 6 | 51 |
| Private | 25 | 56 | 24 | 20 | 20 | 10 | 30 | 40 | 96 | 4 | 60 | 4 | 36 |
| Number of students enrolled | | | | | | | | | | | | | |
| Up to 10,000 | 36 | 57 | 23 | 20 | 18 | 18 | 21 | 43 | 97 | 3 | 67 | 3 | 31 |
| 10,001 to 20,000 | 54 | 47 | 26 | 26 | 26 | 18 | 24 | 32 | 93 | 7 | 47 | 0 | 53 |
| 20,001 and more | 83 | 61 | 25 | 15 | 19 | 9 | 29 | 44 | 93 | 7 | 34 | 11 | 55 |
| Number of university divisions | | | | | | | | | | | | | |
| Up to 20 | 93 | 54 | 24 | 21 | 21 | 17 | 26 | 36 | 95 | 5 | 44 | 9 | 48 |
| More than 20 | 80 | 57 | 25 | 18 | 20 | 9 | 26 | 45 | 92 | 8 | 46 | 3 | 51 |
| Predominant study programmes | | | | | | | | | | | | | |
| Sciences | 29 | 62 | 17 | 21 | 35 | 13 | 35 | 17 | 93 | 7 | 61 | 4 | 36 |
| Social sciences | 12 | 46 | 27 | 27 | 0 | 25 | 0 | 75 | 8 | 17 | 50 | 0 | 50 |
| Both | 130 | 56 | 27 | 18 | 19 | 13 | 26 | 42 | 95 | 5 | 40 | 7 | 53 |
| Theology studies | | | | | | | | | | | | | |
| No | 82 | 60 | 22 | 18 | 21 | 9 | 26 | 44 | 94 | 6 | 43 | 6 | 51 |
| Yes | 54 | 54 | 25 | 21 | 17 | 15 | 29 | 39 | 91 | 9 | 35 | 7 | 57 |
| Medicine | | | | | | | | | | | | | |
| No | 40 | 56 | 21 | 23 | 13 | 10 | 23 | 53 | 90 | 10 | 38 | 5 | 58 |
| Yes | 96 | 58 | 24 | 18 | 22 | 12 | 29 | 38 | 94 | 6 | 41 | 7 | 52 |
| Academy of arts | | | | | | | | | | | | | |
| No | 44 | 55 | 25 | 21 | 20 | 14 | 40 | 26 | 93 | 7 | 55 | 7 | 39 |
| Yes | 92 | 59 | 22 | 19 | 19 | 10 | 21 | 50 | 92 | 8 | 33 | 7 | 61 |
| Total | 232 | 57 | 25 | 18 | 20 | 15 | 26 | 40 | 93 | 7 | 45 | 6 | 49 |

Table 3. Proportions (%) for categories of variables within implementation timing (n = 232).

| Variables | n | Implementation timing | | | Mid-semester evaluations | Pre-exam SET opening | | Pre-exam SET closing | | Post-exam SET opening | | Post-exam SET closing | |
|---------------------------------------|-----|-----------------------|---------------|--------|--------------------------|------------------------|---------------------|----------------------|---------------|------------------------------|-----------------------------|------------------------------|-----------------------------|
| | | % Before exams | % After exams | % Both | | % Middle of the course | % End of the course | % Before exams | % After exams | % Before receiving the grade | % After receiving the grade | % Before receiving the grade | % After receiving the grade |
| Continent | | | | | | | | | | | | | |
| Asia | 19 | 74 | 26 | 0 | 37 | 31 | 69 | 85 | 15 | 80 | 20 | 100 | 0 |
| Europe | 91 | 68 | 20 | 12 | 45 | 32 | 68 | 71 | 29 | 59 | 41 | 27 | 73 |
| N. America | 51 | 90 | 8 | 2 | 51 | 7 | 93 | 87 | 13 | 100 | 0 | 20 | 80 |
| University type | | | | | | | | | | | | | |
| Public | 145 | 74 | 18 | 8 | 48 | 24 | 76 | 78 | 22 | 64 | 36 | 36 | 64 |
| Private | 25 | 88 | 12 | 0 | 36 | 15 | 85 | 76 | 24 | 100 | 0 | 67 | 33 |
| Number of students enrolled | | | | | | | | | | | | | |
| Up to 10,000 | 36 | 74 | 23 | 3 | 58 | 21 | 79 | 74 | 26 | 78 | 22 | 57 | 43 |
| 10,001 to 20,000 | 54 | 67 | 24 | 9 | 46 | 26 | 74 | 79 | 21 | 53 | 47 | 25 | 75 |
| 20,001 and more | 81 | 83 | 10 | 7 | 41 | 21 | 79 | 78 | 22 | 77 | 23 | 40 | 60 |
| Number of university divisions | | | | | | | | | | | | | |
| Up to 20 | 92 | 71 | 20 | 10 | 53 | 26 | 74 | 75 | 25 | 72 | 28 | 35 | 65 |
| More than 20 | 79 | 82 | 14 | 4 | 38 | 19 | 81 | 80 | 20 | 57 | 43 | 50 | 50 |
| Predominant study programmes | | | | | | | | | | | | | |
| Sciences | 29 | 64 | 29 | 7 | 55 | 29 | 71 | 80 | 20 | 70 | 30 | 29 | 71 |
| Social sciences | 12 | 83 | 0 | 17 | 50 | 25 | 75 | 75 | 25 | 50 | 50 | 0 | 100 |
| Both | 128 | 77 | 16 | 6 | 44 | 20 | 80 | 78 | 22 | 67 | 33 | 47 | 53 |
| Theology studies | | | | | | | | | | | | | |
| No | 83 | 75 | 18 | 7 | 48 | 24 | 76 | 79 | 21 | 58 | 42 | 55 | 45 |
| Yes | 53 | 81 | 12 | 8 | 42 | 22 | 78 | 70 | 30 | 80 | 20 | 25 | 75 |
| Medicine | | | | | | | | | | | | | |
| No | 40 | 82 | 10 | 8 | 55 | 24 | 76 | 79 | 21 | 57 | 43 | 0 | 100 |
| Yes | 96 | 75 | 18 | 7 | 41 | 23 | 77 | 73 | 27 | 68 | 32 | 53 | 47 |
| Academy of arts | | | | | | | | | | | | | |
| No | 45 | 67 | 18 | 16 | 39 | 32 | 68 | 64 | 36 | 60 | 40 | 33 | 67 |
| Yes | 90 | 82 | 14 | 3 | 49 | 19 | 81 | 81 | 19 | 71 | 29 | 50 | 50 |
| Total | 232 | 77 | 17 | 7 | 46 | 21 | 79 | 78 | 22 | 67 | 33 | 40 | 60 |

Table 4. Proportions (%) for categories of variables within access of average SET scores (n = 232).

| Variables | n | Average SET scores accessibility | | | |
|---------------------------------------|------------|-----------------------------------|------------------|-----------|---|
| | | % Students enrolled in the course | % Other teachers | % Public | % Only management and evaluated teacher |
| Continent | | | | | |
| Asia | 14 | 7 | 7 | 0 | 50 |
| Europe | 83 | 30 | 35 | 13 | 29 |
| North America | 42 | 12 | 21 | 10 | 48 |
| University type | | | | | |
| Public | 126 | 21 | 29 | 13 | 36 |
| Private | 20 | 25 | 30 | 10 | 38 |
| Number of students enrolled | | | | | |
| Up to 10,000 | 29 | 31 | 34 | 14 | 35 |
| 10,001 to 20,000 | 48 | 17 | 25 | 17 | 37 |
| 20,001 and more | 69 | 22 | 30 | 10 | 37 |
| Number of university divisions | | | | | |
| Up to 20 | 81 | 28 | 40 | 14 | 27 |
| More than 20 | 65 | 14 | 17 | 12 | 50 |
| Predominant study programmes | | | | | |
| Sciences | 25 | 16 | 28 | 16 | 37 |
| Social sciences | 11 | 36 | 45 | 9 | 36 |
| Both | 108 | 21 | 28 | 13 | 37 |
| Theology studies | | | | | |
| No | 76 | 21 | 32 | 17 | 37 |
| Yes | 41 | 24 | 32 | 5 | 30 |
| Medicine | | | | | |
| No | 36 | 25 | 47 | 8 | 26 |
| Yes | 81 | 21 | 25 | 15 | 38 |
| Academy of arts | | | | | |
| No | 40 | 20 | 35 | 18 | 31 |
| Yes | 77 | 23 | 30 | 10 | 36 |
| Total | 232 | 22 | 29 | 13 | 34 |

Table 5. Proportions (%) for categories of variables within types of SET invitations and the average SET response rate (n = 232).

| Variables | n | Invitations | | | Response rate ³ |
|---------------------------------------|-----|-------------|----------------------------------|------------------------|----------------------------|
| | | % Email | % Institution information system | % Live during lectures | |
| Continent | | | | | |
| Asia | 19 | 58 | 58 | 26 | 49% |
| Europe | 93 | 75 | 65 | 61 | 33% |
| North America | 51 | 92 | 69 | 63 | 47% |
| University type | | | | | |
| Public | 147 | 78 | 66 | 60 | 38% |
| Private | 25 | 84 | 68 | 44 | 46% |
| Number of students enrolled | | | | | |
| Up to 10,000 | 36 | 78 | 61 | 56 | 53% |
| 10,001 to 20,000 | 55 | 80 | 75 | 49 | 33% |
| 20,001 and more | 82 | 79 | 63 | 65 | 37% |
| Number of university divisions | | | | | |
| Up to 20 | 94 | 79 | 63 | 60 | 38% |
| More than 20 | 79 | 80 | 71 | 56 | 39% |
| Predominant study programmes | | | | | |
| Sciences | 29 | 69 | 66 | 38 | 45% |
| Social sciences | 12 | 92 | 75 | 58 | 42% |
| Both | 130 | 80 | 66 | 62 | 37% |
| Theology studies | | | | | |
| No | 83 | 78 | 71 | 60 | 37% |
| Yes | 54 | 81 | 63 | 63 | 39% |
| Medicine | | | | | |
| No | 40 | 80 | 68 | 60 | 39% |
| Yes | 97 | 79 | 68 | 62 | 37% |
| Academy of arts | | | | | |
| No | 45 | 80 | 71 | 56 | 32% |
| Yes | 92 | 79 | 66 | 64 | 40% |
| Total | 232 | 79 | 66 | 58 | 39% |

³ The response rate is calculated based only on the units where SET completion is not mandatory for students. If all units are considered, the average response rate is 50%.

Table 6. Averages for benchmark groups and percentile groups (n = 232).

| Variables | n | Benchmarks for criteria – averages | | | | Percentiles for norms – averages | | | |
|---|-----|------------------------------------|-----|----------|-----------|----------------------------------|-----|----------|-----------|
| | | Critically low | Low | Positive | Excellent | Critically low | Low | Positive | Excellent |
| Continent | | | | | | | | | |
| Asia | 9 | 3.2 | 3.8 | 4.2 | 4.6 | 20 | 33 | 40 | 85 |
| Europe | 26 | 2.5 | 3.0 | 3.8 | 4.6 | 19 | 37 | 63 | 77 |
| North America | 9 | 2.7 | 3.2 | 4.0 | 4.7 | 33 | 46 | 63 | 85 |
| University type | | | | | | | | | |
| Public | 34 | 2.7 | 3.2 | 3.9 | 4.6 | 22 | 40 | 63 | 79 |
| Private | 10 | 2.6 | 3.3 | 4.0 | 4.7 | 23 | 40 | 53 | 86 |
| Number of students enrolled | | | | | | | | | |
| Up to 10,000 | 9 | 2.9 | 3.4 | 4.0 | 4.7 | 23 | 45 | 71 | 91 |
| 10,001 to 20,000 | 12 | 2.4 | 3.1 | 3.8 | 4.6 | 25 | 43 | 63 | 72 |
| 20,001 and more | 23 | 2.7 | 3.2 | 4.0 | 4.6 | 21 | 36 | 55 | 80 |
| Number of university divisions | | | | | | | | | |
| Up to 20 | 23 | 2.7 | 3.2 | 3.9 | 4.5 | 25 | 42 | 67 | 78 |
| More than 20 | 21 | 2.6 | 3.2 | 4.0 | 4.6 | 20 | 38 | 54 | 83 |
| Predominant study programmes – sciences or social sciences and sciences (both) | | | | | | | | | |
| Sciences | 11 | 2.7 | 3.4 | 4.2 | 4.8 | 24 | 48 | 68 | 92 |
| Both | 32 | 2.7 | 3.2 | 3.8 | 4.5 | 22 | 38 | 59 | 77 |
| Theology studies | | | | | | | | | |
| No | 19 | 2.8 | 3.2 | 3.8 | 4.6 | 20 | 39 | 57 | 75 |
| Yes | 16 | 2.5 | 3.0 | 3.8 | 4.5 | 26 | 42 | 62 | 82 |
| Medicine | | | | | | | | | |
| No | 9 | 2.7 | 3.2 | 3.9 | 4.5 | 27 | 43 | 62 | 82 |
| Yes | 26 | 2.6 | 3.1 | 3.8 | 4.6 | 22 | 40 | 59 | 78 |
| Academy of arts | | | | | | | | | |
| No | 16 | 2.8 | 3.0 | 3.9 | 4.5 | 29 | 46 | 65 | 79 |
| Yes | 18 | 2.6 | 3.2 | 3.8 | 4.5 | 18 | 35 | 57 | 79 |
| Total – average | 232 | 2.7 | 3.2 | 3.9 | 4.6 | 22 | 40 | 59 | 81 |