THE DYLAN LINGUISTIC INDICATORS

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This list of indicators is an annexe to the book chapter "Assessing efficiency and fairness in multilingual communication: theory and application through indicators" (with François Grin), in Anne-Claude Berthoud, François Grin and Georges Lüdi (eds.), *Exploring the Dynamics of Multilingualism*. Amsterdam/Philadelphia John Benjamins, p. 365–386, (2013).

The reader is invited to refer to Table 1 in the book chapter for classification codes.

General structural indicators

These indicators provide information on the general use of languages in society, and in particular in the education system and in the economy (other social domains like the media or the family are not included). In some cases, we have added indictors concerning the resources used/invested in language skills

1. Demographic structural indicators: people and society

Class	Indicators per country
General context indicators - a00	1. Number of (adult) native speakers of language X, by age (e.g. 18-25, 26-45, 46-65, +66) 2. Number of persons for whom language X is the primary language of education but not his/her native language, by age 3. Number of speakers of language X as a second or foreign language, by age 4. Number of speakers of language X as a second or foreign language, by level of competence (A1 to C2 of the Common European Framework of Reference for Languages) 5. Number of speakers of language X as a second or foreign language, by level of education achieved (e.g. primary, lower secondary, upper secondary, tertiary education, or grades from 1 to 8 of the International Standard Classification of Education, ISCED) 6. Number of speakers of language X as a second or foreign language, by occupational status (e.g. employed, unemployed, student, retired, other inactive) 7. Number of speakers of language X as a second or foreign language, by income status (defined in quintiles) 8. Number of speakers of language X as a second or foreign language, by labour status (defined in terms of some professional status, like "managers, professionals, technicians and associate professionals", "clerks and sales", "skilled agricultural and fishery workers, craft and related trades workers" "plant and machine operators and assemblers and elementary occupations") 9. Frequency of use of language X (e.g. never, rarely, occasionally, sometimes, at least 1 hour a week, at least 1 hour a day) 10. Frequency of use of language X, by level of education achieved 11. Frequency of use of language X, by occupational status 12. Frequency of use of language X, by income status 13. Frequency of use of language X, by labour status

2. Primary and secondary education structural indicators

Class	Indicators by country
1. General context indicators - a00	1. Number of pupils studying in language X, by level of education (e.g. primary education, lower secondary education, upper secondary education or grades from 1 to 3 of the International Standard Classification of Education) 2. Number of pupils studying in language X, by type of school (private and public schools) 3. Number of pupils studying language X as a second, third or foreign language, by level of education 4. Number of pupils studying language X as a second, third or foreign language, by type of school 5. Number of pupils who speak language X at home 6. Number of hours per year during which language X is studied as a second, third or foreign language, per level of education 7. Number of hours per year during which language X is used in teaching activities, per level of education 8. Percentage of teaching hours in which language X is used in teaching activities, per level of education (except when language X is taught as a second, third or foreign language) 9. Percentage of teaching hours in which language X is used in teaching activities, by type of school (except when language X is taught as a second or foreign language)
2. Resources - a00	1. Total domestic public expenditure for teaching language X as second, third, or foreign language, by level of education 2. Total domestic private expenditure for teaching language X as second, third, or foreign language in private schools, by level of education 3. Per pupil average public expenditure for teaching language X as second, third, or foreign language , by level of education 4. Per pupil average private expenditure teaching language X as second, third, or foreign language in private schools, by level of education 5. Per household average yearly private (or extra curricula) expenditure for teaching language X as second, third, or foreign language , by level of education
3. Results and cost-effectiveness	1. Number of pupils who have achieved a given level of competence in language X as a second, third or foreign language (using the Common European Framework of Reference for Languages), by level of education 2. Number of pupils who have achieved a given level of competence in language X as a second, third or foreign language (using

| - a00 | the Common European Framework of Reference for Languages), by type of school |
| | 3. Ratio between the number of pupils who have achieved a given level of competence in language X as a second, third or foreign language (using the Common European Framework of Reference for Languages) and the total domestic public expenditure for teaching language X as second, third, or foreign language, by level of education |

3. Tertiary education structural indicators

Class	Indicators by country
1. General context indicators - a00	1. Number of students enrolled in programmes taught in language X, by type of programme (BA, MA, PhD) 2. Number of students enrolled in programmes taught in language X, by subject area 3. Number of students enrolled who are native speakers of language X, by type of programme (BA, MA, PhD) 4. Number of students enrolled who are native speakers of language X, by subject area 5. Number of students enrolled in courses in which language X is taught as a foreign language (e.g. grades from 4 to 8 of the International Standard Classification of Education) 6. Number of students enrolled in courses in which language X is taught as a foreign language (e.g. grades from 4 to 8 of the International Standard Classification of Education), excluding courses where language X is the main subject of the study programme 7. Percentage of students enrolled in courses in which language X is taught as a foreign language (e.g. grades from 4 to 8 of the International Standard Classification of Education) 8. Average number of hours per year during which language X is studied as a foreign language in tertiary education institutions 9. Number of researchers and professors who are native speakers of language X 10. Number of students who speak language X, by level of fluency (A1 to C2 of the Common European Framework of Reference for Languages) 11. Number of researchers (incl. professors) who speak language X, by level of fluency (A1 to C2 of the Common European Framework of Reference for Languages)
2. Resources - a00	1. Gross domestic public expenditure for tertiary level education 2. Gross domestic public expenditure for teaching foreign language X in tertiary education 3. Per student average public expenditure for teaching foreign languages in tertiary education 4. Gross domestic public expenditure for competitive research programmes (e.g. national scientific foundations) 5. Total private funding for competitive research programmes 6. Per researcher (incl. professors) total private funding for competitive research programmes

3. Results - a00	1. Number of BA programmes taught in language X, by subject area
	2. Number of MA programmes taught in language X, by subject area
	3. Number of PhD programmes taught in language X, by subject area
	4. Number of higher education institutions providing BA programmes taught in language X, by subject area
	5. Number of higher education institutions providing MA programmes taught in language X, by subject area
	6. Number of higher education institutions providing PhD programmes taught in language X, by subject area
	7. Number of hours per year during which language X is used in teaching activities, by subject area
	8. Number of students who have completed programmes taught in language X, by type of programme (BA, MA, PhD)
	9. Number of students who have completed programmes taught in language X, by subject area
	10. Average number of scientific publications in language X per researcher
	11. Average number of scientific publications published in peer-reviewed journals in language X per researcher

4. Business and labour market structural indicators

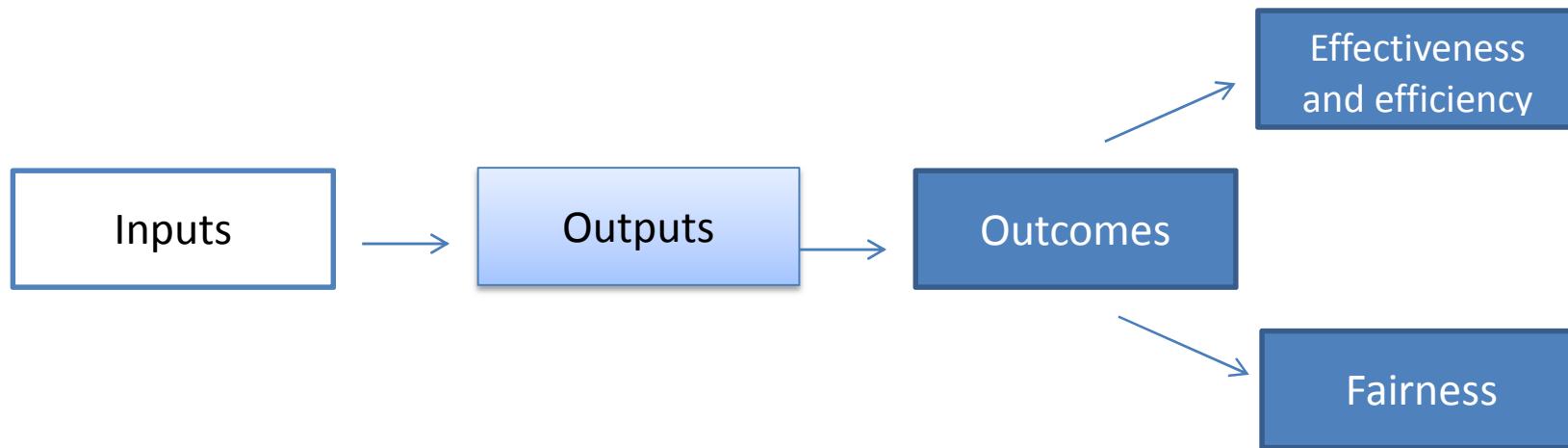| Class	Indicators per country
1. General context indicators - a00	1. Number of employed persons (employees and self-employed) who speak language X, by level of fluency (A1 to C2 of the Common European Framework of Reference for Languages) 2. Number of employed persons (employees and self-employed) who use language X on the workplace, by economic sector 3. Number of employed persons (employees and self-employed) who know language X, but do not use it on the workplace, by sector 4. Percentage of staff who is a native speaker of language X (large companies only) 5. Percentage of staff who can use language X, by level of competence and by class of staff (e.g. directors, executives/managers, human resources, white collars, sales or purchase staff/agents, workers) 6. Percentage of staff who can use language X, by level of competence and by size of firms (e.g. small, medium, large companies) 7. Percentage of staff who can use language X, by level of competence and by sector 8. Percentage of staff who can use language X, by level of competence and by value of exports as a proportion of total sales (quintiles). 9. Percentage of staff who can use language X, by level of competence and by value of import as a proportion of total purchases (quintiles). 10. Percentage of staff using language X in carrying out their work, by class of staff 11. Percentage of staff using language X in carrying out their work, by size of the firm 12. Percentage of staff using language X in carrying out their work, by sector 13. Percentage of staff using language X in carrying out their work, by value of exports as a proportion of total sales (quintiles) 14. Percentage of staff using language X in carrying out their work, by value of import as a proportion of total purchases (quintiles) 15. Self-reported degree of usefulness of knowing language X in business activities, by class of staff 16. Self-reported degree of usefulness of knowing language X in business activities, by size by of the firm 17. Self-reported degree of usefulness of knowing language X in business activities, by economic sector 18. Self-reported degree of usefulness of knowing language X in business activities, by value of exports as a proportion of total sales

	(quintiles)
	19. Self-reported degree of usefulness of knowing language X in business activities, by value of import as a proportion of total purchases (quintiles)
	20. Frequency of use of language X on the workplace (e.g. never, rarely, occasionally, sometimes, at least 1 hour a week, at least 1 hour a day)
	21. Frequency of use of language X on the workplace, by class of staff
	22. Frequency of use of language X on the workplace, by sector
	23. Frequency of use of language X on the workplace, by size of the firm
	24. Frequency of use of language X on the workplace, by value of exports as a proportion of total sales (quintiles)
	25. Frequency of use of language X on the workplace, by value of import as a proportion of total purchases (quintiles)
	26. Number of firms employing staff who can use language X, by level of competence and by size of the firm
	27. Number of firms employing staff who can use language X, by level of competence and by sector
	28. Number of firms employing staff who can use language X, by level of competence and by value of exports as a proportion of total sales (quintiles)
	29. Number of firms employing staff who can use language X, by level of competence and by value of import as a proportion of total purchases (quintiles)
2. Innovative activities - a00	1. Number of patent applications filed by national companies with the European Patent Office (EPO) per year, by procedural language chosen
	2. Number of patents granted to national firms by the European Patent Office (EPO) per year, by procedural language chosen
	3. Number of trademark and industrial designs applications filed by national companies with the Office for the Harmonisation of the Internal Market (OHIM) per year, by procedural language chosen
	4. Number of trademarks and industrial designs granted to national companies by the OHIM per year, by procedural language chosen
3. Resources (excluding staff) - a00	1. Average number of courses or initiatives for linguistic education of staff in language X, by class of staff (e.g. directors, executives/managers, human resources, white collars, sales or purchase staff/agents, workers)
	2. Average number of courses or initiatives for linguistic education of staff in language X, by size of the firm
	3. Average number of courses or initiatives for linguistic education of staff in language X, by sector
	4. Average number of courses or initiatives for linguistic education of staff in language X, by value of exports as a proportion of total sales (quintiles)
	5. Average number of courses or initiatives for linguistic education of staff in language X language, by value of import as a proportion of

	total purchases (quintiles)
	6. Percentage of firms that have invested in course or initiatives for linguistic education of staff in language X during the last 12 months
	7. Average amount of resources invested in linguistic education of staff in language X with respect to total investments
	8. Average amount of resources invested in linguistic education of staff in language X with respect to total investments, by size of the firm
	9. Average amount of resources invested in linguistic education of staff in language X with respect to total investments, by sector
	10. Average amount of resources invested in linguistic education of staff in language X with respect to total investments, by value of exports as a proportion of total sales (quintiles)
	11. Average amount of resources invested in linguistic education of staff in language X with respect to total investments, by value of import as a proportion of total purchases (quintiles)
	12. Average amount of resources used for internal translation and interpreting into language X
	13. Average amount of resources used for internal translation and interpreting into language X, by size of the firm
	14. Average amount of resources used for internal translation and interpreting into language X, by sector
	15. Average amount of resources used for internal translation and interpreting into language X, by value of exports as a proportion of total sales (quintiles)
	16. Average amount of resources used for internal translation and interpreting into language X, by value of import as a proportion of total purchases (quintiles)
	17. Average amount of resources spent in linguistic external services in language X with respect to total purchases
	18. Average amount of resources spent in linguistic external services in language X with respect to total purchases by size of the firm
	19. Average amount of resources spent in linguistic external services in language X with respect to total purchases by sector
	20. Average amount of resources spent in linguistic external services in language X with respect to total purchases by value of exports as a proportion of total sales (quintiles)
	21. Average amount of resources spent in linguistic external services in language X with respect to total purchases by value of import as a proportion of total purchases (quintiles)
4. Fairness- a00	1. Average percentage difference between the costs of access to the European patent protection borne by an applicant using an official language of the European Patent Office as his/her working language and the costs borne by an applicant using a as working language a non-official language
	2. Percentage of patent applications at the EPO published in language X, per language of used in filing

Policy/strategy terrain indicators

These indicators can be applied to the evaluation of concrete language policies/strategies of firms, EU institutions or tertiary level education institutes, according to this general evaluation path:

5. Business language strategy indicators, external communication

Class of indicator	Indicators per company		
1. Inputs – a14-a16	1. Resources invested in linguistic education of staff in language X with respect to total investments 2. Resources invested in linguistic education of staff in language X with respect to total investments in human capital 3. Resources spent in linguistic external services (e.g. translation and interpreting) into/from language X with respect to total purchases 4. Staff who can use language X, by level of competence and by class of staff (e.g. directors, executives/managers, human resources, white collars, sales or purchase staff/agents, workers)		
2. Outputs - a24-a26	1. Number of courses or initiatives for linguistic education of staff in language X by class of staff (e.g. directors, executives/managers, human resources, white collars, sales or purchase staff/agents, workers) 2. Percentage of corporate reports drafted in or translated into language X 3. Percentage of company's webpages drafted or in translated into language X 4. Percentage of products (goods/services) labelled in language X 5. Percentage of corporate messages addressed to customers (e.g. advertisements) drafted in or translated into language X 6. Percentage of corporate messages addressed to suppliers (e.g. orders) drafted in or translated into language X 7. Number of patent applications filed with the European Patent Office that are drafted in or translated into language X 8. Number of trademark and industrial design applications filed with the Office for the Harmonisation of the Internal Market (OHIM) that are drafted in or translated into language X 9. Number of hours of communication with customers in post-sales assistance via call centre (per language used)		
3. Outcomes Effectiveness a34-a36	Cooperative (β) communication a35	1. (The opposite of the) number of complaints lodged by stakeholders with respect to language used in corporate communication 2. (The opposite of the) number of complaints lodged by public authorities with respect to language used in corporate communication 3. (The opposite of the) number of legal actions linked to infringement of local linguistic laws in the domain of product labelling 4. (The opposite of the) number of legal actions linked to infringement of local linguistic laws in the domain of languages to be used in job contracts 5. (The opposite of the) number of legal actions linked to infringement of local linguistic laws in the domain of occupational	

		safety and health
	Strategic (γ) communication – a36	1. Number of visits to web pages by (potential) customers, by language used to draft the webpage 2. Number of phone contacts with X-speaking customers, by native language of customers 3. Number of products sold in X-speaking countries 4. Sales, by language used in labelling
	Informatory (α) communication – a34	1. Job applications received, by language used in the job announcement 2. Job applications received, by native language of applicants 3. Differential between the price for inputs provided by an X-speaking supplier with respect to the same inputs provided by a Y-speaking provider 4. Number of patents granted by the European Patent Office, by procedural language used in the application 5. Number of trademarks and industrial designs granted by the Office for the Harmonisation of the Internal Market (OHIM), by procedural language used by the applicant
4. Fairness a44-a46 a54-a56 a64-a66		1. Some indicators in class 5.3.1 can be used to develop fairness indicators in cell a55 in Table 1 in the chapter (e.g. distribution of the opposite of the number of complaints lodged by stakeholders with respect to language used in corporate communication, by native language of stakeholders) 2. Some indicators in class 5.3.2 can be used to develop fairness indicators in cell a46 in Table 1 in the chapter (e.g. Number of visits to web pages by potential customers by language used to draft the webpage and by native language of customers) 3. Some indicators in class 5.3.3 can be used to develop fairness indicators in cell a44 inTable 1 in the chapter (e.g. number of patents granted by the European Patent Office, by procedural language used in the application and by native language of the inventor)
5 Cost-effectiveness (Ind. 5.3/5.1)		Outcome indicators on input indicators. E.g.: 1. Number of products sold in X-speaking countries, per thousand of Euros spent in language training of staff in language X

6. Business strategy indicators, internal communication

Class of indicator	Indicators per company	
1 Input - a11-a13	Cf. Indicators in class **5**.1	
2. Output – a21-a23	1. Number of pages of work instructions drafted and translated into language X 2. Percentage of pages of work instructions drafted and translated into language X 3. Number of pages translated into language X in the domain of safety and health 4. Percentage of pages translated into language X in the domain of safety and health	
3. Outcome Effectiveness – a31-a33	1. Cooperative (β) communication – a32	1. (The opposite of the) number of complaints lodged by staff regarding the use of languages in written communication 2. (The opposite of the) number of complaints lodged by staff regarding the use of languages in oral communication 3. (The opposite of the) number of complaints lodged by the unions regarding the use of languages in the firm 4. Cf. Indicator 5.3.5 5. Average pleasantness of meetings (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)
	2. Informatory (α) communication – a31	1. Time lag (average time between production of information and the moment when information is understood by all relevant target audiences or/and time needed for information to have reached and understood by all intended addressees) 2. Informational usefulness of meetings (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)

4. Fairness a41-a43, a51-a53, a61-a63	1. Distribution of speaking time among participants in a meeting, by native language of participants 2. Some indicators in class 6.3.1 can be used to develop fairness indicators in cells a52 and a62 in Table 1 in our chapter (e.g. distribution of the opposite of the number of complaints lodged by staff regarding the use of languages in written communication, by native language of staff) 3. Some indicators in class 6.3.2 can used to develop fairness indicators in cell a61 in Table 1 in our chapter (e.g. distribution of the value of the informational usefulness of meetings index, by native language of staff)

7. EU institutions language policy indicators, external and internal communication

Class of indicator	Indicators per institution
1. Inputs – a11-a16	1. Average yearly amount of resources spent for internal translation services (including editing) 2. Average yearly amount of resources spent for outsourced translation services 3. Average yearly amount of resources spent for internal interpreting services 4. Average yearly amount of resources spent for outsourced interpreting services 5. Monthly share of overheads imputable to translation services (including editing) 6. Monthly share of overheads imputable to interpreting services 7. Number of full time translators per language (source and target) 8. Number of full time interpreters per language (source and target) 9. Per hour cost of a full time translator 10. Per hour cost of a full time interpreter 11. Per hour cost of free-lance translator 12. Per hour cost of free-lance interpreter 13. Number of civil servants who are native speakers of language X, by class of staff (e.g. administrators, AD, and assistants, AST) 14. Number of civil servants who know language X as a second or foreign language, by class of staff and by level of competence (A1 to C2 of the Common European Framework of Reference for Languages) 15. Number of political representatives who are native speakers of language X, by type of representatives (e.g. Member of the European Parliament, representatives at the Social and Economic committee) 16. Number of political representatives who can use language X as a second or foreign language, by type of representatives and by level of competence 17. Amount of resources spent to provide courses of language X to civil servants, by class of staff (per year) 18. Amount of resources spent to provide courses of language X to political representatives, by type of representatives (per year) 19. Number of documents *to be* translated per month (or number of standardised pages *to be* translated), by source language 20. Number of hours of meeting *to be* interpreted per month, by source language

2. Output – a21-a26		1. Number of documents translated per month (or number of standardised pages translated), by source language (including editing). E.g. working documents of the European Parliament, draft resolutions, draft regulations 2. Number of hours of meeting interpreted per month, by source language 3. Number of documents translated per month (or number of standardised pages translated), by target language (including editing) 4. Number of hours of meeting interpreted per month, by target language 5. Number of pages translated relating to documents aimed at external communication, by target language (including editing) 6. Number of pages translated relating to documents aimed at internal communication, by target language (including editing) 7. Percentage of web pages translated per months, per target language (including editing) 8. Number of hours of interpreting for internal meetings, per target language 9. Number of hours of interpreting for meetings involving external actors, per target language 10. Coverage or extent of translation, per target language (number of documents translated into language X on number of documents drafted in another source language) 11. Extent of interpreting per language (hours interpreted into language X on total amount of hours of meeting in other languages)
3. Outcome Effectiveness - a31-a36	1. Cooperative (β) communication – a32, a35	1. Number of drafts documents submitted by political representatives (e.g. Members of the European Parliament), by representatives native language (or L1) 2. Percentage of background working documents received by political representatives in their L1 3. (The opposite of) the number of complaints lodged by private actors (citizens and businesses) with respect to the use of languages in external communication 4. (The opposite of) the number of complaints lodged by national public authorities with respect to the use of languages in external communication 5. (The opposite of) the number of complaints lodged by private actors or national public authorities with respect to the expenditures of language services 6. Average pleasantness of internal meetings (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)
	2. Strategic (γ) communication – a36	1. (The opposite of) the number of negative comments from the media concerning the management of linguistic diversity in external communication 2. (The opposite of) the number of negative comments from the media concerning the expenditures on language services

	3. Informatory (α) communication – a31, a34	1. Average number of visits to the web pages per month 2. Average number of visits to the web pages per month, by citizens' L1 3. Average number of visits to the web pages per month, per language of publication, by citizens' country of residence 4. [cf. indicator 6.3.2.1]: Time lag (average time between production of information and the moment when information is understood by all relevant target audiences or/and time needed for information to have reached and understood by all intended addressees) 5. Satisfaction of users (e.g. delegates) with the quality of translations and/or interpreting measured in terms of (the opposite of) specific complaints 6. Number of feedbacks from users of language services who rate them satisfactory 7. Number of timely production of translations (e.g. the actual time spent as a proportion of the standard or estimated time on the translation of a specific document) 8. Average frequency of wavering during speeches given in a foreign language 9. Informational usefulness of internal meetings (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)
4. Fairness – a41-a43, a51-a53		1. Difference between the number of public documents available in the language originally used in drafting (say, Y_1), and the number of public documents translated into other languages (Y_2, Y_3, Y_4,....,Y_n) 2. Differences in the percentages of background working documents received by political representatives in their L1 3. Difference in the average distribution of speaking time among civil servants with different linguistic repertoires (internal meetings) 4. Difference in the average distribution of speaking time among political representatives with different linguistic repertoires (internal meetings) 5. Distribution of frequency of wavering during speeches given in a foreign language (internal meetings) 6. Distribution of access to editing of final texts according to editor's L1
		7. Some indicators in class 7.3.1 can be used to develop fairness indicators in cells a51, a52, a62 and a65 in Table 1 in our chapter (e.g. distribution of the opposite of the number of complaints lodged by private actors with respect to the use of languages in external communication, by private actors' L1) 8. Some indicators in class 7.3.2 can be used to develop fairness indicators in cell a66 in Table 1 in our chapter (e.g. the number of negative comments from the media concerning the management of linguistic diversity in external communication, by

		media's country of origin)
		9. Some indicators in class 7.3.3 can be used to develop fairness indicators in cells a41, a44, a51, a52, a61 and a64 inTable 1 in our chapter (e.g. the distribution of the average frequency of wavering during speeches given in a foreign language, by speaker's L1; number of feedbacks from users of language services who rate them satisfactory, by users' L1)
5. Internal Productivity and cost-effectiveness	Internal productivity (Ind. 7.2/7.1)	1. Average cost of producing a translated document (incl. editing) 2. Average cost of producing one interpreted hour 3. Average productivity of translators and interpreters (output divided by the number of available staff)
	Cost-effectiveness (Ind. 7.3/7.1)	Outcome indicators on input indicators. E.g.: 1. Average number of visits to the web pages per month, by citizens' L1, per thousand of Euros spent in language services

8. Higher education institutions language policy indicators

Class of indicator	Indicators per higher education institution
1. Inputs (some context indicators of class a00 can be adapted and used as local contextual indicators) – a11 -a16	1. Resources spent in linguistic education of students in language X 2. Resources spent in linguistic education of students in language X with respect to total expenditures 3. Resources spent in linguistic education of administrative staff in language X with respect to total expenditures 4. Resources spent in linguistic external services in language X with respect to total expenditures (translation and interpreting) 5. Resources spent in multilingual IT services (e.g. webpages, learning platforms) 6. Resources spent in programmes provided in language X 7. Average tuition fees per student 8. Average public transfer per student 9. Average expenditure for teaching and research staff, per domain of research 10. Average expenditure for administrative staff 11. Percentage of resources spent in programmes provided in language X with respect to resources spent for all programmes 12. Number of students whose native language is X, by type of programme (BA, MA, PhD) 13. Number of students studying language X as foreign language, by type of programme (BA, MA, PhD) 14. Number of students who can use language X, by level of competence (A1 to C2 of the Common European Framework of Reference for Languages) 15. Number of students enrolled in programmes provided in language X, by type of programme (BA, MA, PhD) 16. Number of students enrolled in programmes provided in language X, by students' native language 17. Teaching and research staff native speaker of language X 18. Teaching and research staff who can use language X as a second or foreign language, by level by class of staff (e.g. Lectures, readers, professors) and by level of competence 19. Administrative staff who can use language X, by level of competence 20. Number of library resources in language X (e.g. Books and journals)

2. Outputs – a21-a26	1. Number of BA courses provided in language X, by department 2. Number of MA courses provided in language X, by department 3. Number of PhD courses provided in language X, by department 4. Percentage of web pages available in language X 5. Percentage of academic administrative documents available in language X 6. Number of hours of teaching in language X, per department 7. Number of dissertations by language of publication and by degree (BA, MA, PhD) 8. Number of articles published in peer-reviewed journals by research staff, by language of publication 9. Number of books published by research staff, per language of publication 10. Number of book chapters published by research staff, per language of publication 11. Number of conference proceedings published by research staff, per language of publication	
3. Outcomes Effectiveness a31-a36	1. Cooperative (β) communication – a32	1. (The opposite of the) number of negative remarks made by researchers with respect to language to be used in teaching 2. (The opposite of the) number of negative remarks made by students with respect to language to be used in teaching 3. (The opposite of the) number of negative remarks made by students with respect to language proficiency of teachers 4. (The opposite of the) number of interruptions in classrooms due to need for linguistic clarifications 5. Average pleasantness of lessons carried out in language X (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)
	2. Strategic (γ) communication – a36	1. Number of applications received by foreign students (per native language of students) 2. Number of applications received, by country of residence of students

	3. Informatory (α) communication – a31, a34	1. Number of times web pages are visited, by language of publication 2. Number of students who have completed BA, MA or PhD programmes, by student's L1 3. Number of students who have completed BA, MA or PhD programmes, by language used in teaching 4. Number of citations to articles, books and books chapters, patents and conference proceeding published by research staff, by language in which citation is made 5. Number of citations to articles, books and books chapters and conference proceeding published by research staff, by language in which the contribution has been drafted 6. Number of library resources in language X consulted by students 7. Number of books sold that have been authored (partially or completely) by research staff, by language in which the book or book section has been drafted 8. Informational usefulness of lessons carried out in language X (cf. Example 2 in our chapter), using a scale from 0 (min) to 1 (max)
4. Fairness	a51, a52, a62	1. Frequency of interventions of students in the classroom, by students' native language 2. Distribution of speaking time in decision making in informal students' groups by students' native language
		3. Some indicators in class 8.3.1 can be used to develop fairness indicators in cells a42, a52 and a62 in Table 1 in our chapter (e.g. Average pleasantness of lessons carried out in language X, using a scale from 0 (min) to 1 (max), by students' L1; Average pleasantness of lessons carried out in language X, using a scale from 0 (min) to 1 (max), by teachers' L1) 4. Some indicators in class 8.3.3 can be used to develop fairness indicators in cells a41, a51, a61 and a64 in Table 1 in our chapter (e.g. Informational usefulness of lessons carried out in language X, using a scale from 0 (min) to 1 (max), by students' L1)
5. Cost-effectiveness	(ind. 8.3/8.1)	Outcomes indicators on inputs indicators. E.g.: 1. Average number of visits to the web pages per month, per thousand of Euros spent in translation