

Annex B. Technical Standards

TALIS **STARTING STRONG SURVEY**

TECHNICAL STANDARDS

5th and final version for the Main Survey, 15 November 2017

Consortium



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Table of contents

Introduction	4
1. Survey ethics and planning	6
Rationale and purpose	6
Survey ethics and general practice	6
NPMs and national study centres	7
Technology and infrastructure	8
Piloting, Field Trial and Main Survey participation	8
National options	9
Quality assurance and control	9
2. Communication	10
Rationale and purpose	10
Communication and meetings	10
Document and data exchange	11
Quality assurance and control	12
3. Sampling design, weighting and adjudication	13
Rationale and purpose	13
Target population ISCED Level 0.2	13
Populations	13
Sampling frames	14
Sample selection	14
Sample sizes	15
Weighting and estimation	15
Response rates, participation and adjudication	16
Target population: centre-based services for children under the age of 3 years (U3)	17
Quality assurance and control	18
4. Instrument adaptation, translation and verification	19
Rationale and purpose	19
Languages	19
National adaptation of instruments and manuals	19
National extensions of instruments	20
Translation of instruments and manuals	20
Translation verification	21
Layout verification of online and paper questionnaires	21
Quality assurance and control	22
5. Centre cooperation and within-Centre sampling	23
Rationale and purpose	23
Obtaining centre cooperation and ethics	23
Centre Coordinators	23
Within-centre listing and sampling	24
Quality assurance and control	25
6. Data collection and participation monitoring	26
Rationale and purpose	26
Preparation, adaptation and language conversion	26
Material printing, packaging and shipping of paper questionnaires and cover letters	27
Data collection and participation monitoring	27
Quality assurance and control	28
7. Observing the quality of data collection	29
Rationale and purpose	29

International Data Collection Quality Observation	29
National Data Collection Quality Observation	29
Survey Activities Questionnaire	30
Quality assurance and control	30
8. Data capture of paper instruments, verification, submission and management	31
Rationale and purpose	31
Data capture	31
Double/reliability data capture	31
Data verification	32
Data submission, processing and archiving	32
Quality assurance and control	33
9. Confidentiality, security and preparation of the international database	34
Rationale and purpose	34
Confidentiality	34
Security and integrity	34
Availability	35
Preparation of the international database	35
Quality assurance and control	36
10. Data analysis and reporting	37
Rationale and purpose	37
Data dissemination and reporting	37
Data analysis and estimation	37
Publication of Results	38
Quality assurance and control	39
References	40

INTRODUCTION

The Organisation for Economic Co-operation and Development (OECD) has initiated the first staff level survey collecting rich information from centre leaders and centre staff most relevant for the delivery of quality Early Childhood Education and Care (ECEC) services. The so called TALIS Starting Strong Survey investigates ECEC staff working at centres providing services for children at ISCED Level 0.2 and/or for children under the age of three years. Two types of questionnaires are provided to the respondents selected in the two target populations: a centre leader questionnaire (LQ) and a staff questionnaire (SQ)¹.

The TALIS Starting Strong Survey establishes technical standards and guidelines in a concise, dedicated document, which apply to key planning and operational tasks. As such, the National Project Managers (NPMs) and national study centre staff are the main target audience for these standards. The objectives are to:

- Explicitly indicate the data quality expectations, survey implementation and best practices endorsed by the Consortium, the Technical Advisory Group (TAG), the OECD Secretariat, and eventually the Extended Early Childhood Education and Care (ECEC) Network on the TALIS Starting Strong Survey²;
- Establish a collective agreement on quality among the Participants³ and the international actors stated above; and
- Ensure that all Participants collect data using consistent and sound methodology and that the national survey design and implementation yield high-quality, *i.e.* precise, generalisable and internationally comparable data.

The standards presented in this document are generally agreed-upon best practices in survey research to be adhered to in the conduct of the project (see for example: IEA 1999, Biemer and Lyberg 2003, Statistics Canada 2009, TALIS 2013 Technical Standards OECD, 2012 a). Further, aspects of the specific implementation by the current Consortium are stated. In addition to the standards themselves, the document may provide notes, guidelines, clarifications or recommendations, which are designed to improve the quality of the survey implementation and results. The standards are produced for both the Field Trial and the Main Survey, yet deviations for the Field Trial are indicated where necessary.

The standards described in this document for the TALIS Starting Strong Survey are based on the TALIS 2018 standards and are extended and adapted to the design of the TALIS Starting Strong Survey as necessary. All standards apply to both ECEC target populations unless explicitly specified differently. Further research will be conducted end of 2016 to determine what constitutes a “participating staff member” in the TALIS Starting Strong Survey.

The primary responsibility for the drafting of the technical standards lies with the TALIS Starting Strong Survey Consortium. Standards developed for similar surveys were reviewed and taken into consideration. The standards are grouped by content area and numbered within each area to make references clear and easily accessible (*e.g.* Standard x.x - Standard description). Each section includes the rationale and purpose of the standards, the standards themselves, and a list of quality assurance and control measures.

The primary responsibilities for areas are allocated as follows:

- IEA Hamburg: survey planning, communication; sampling and weighting; instrument adaptation, data collection/field operations, data capture and verification, confidentiality and security, and analysis

¹ In centres where no distinct centre leader exists, derived versions of these two questionnaires will be provided.

² The Extended ECEC Network includes all those TALIS Starting Strong Survey OECD member and partner countries that participate in this survey.

³ “Participant” in the TALIS Starting Strong Survey is defined as an OECD or partner country, economy, province, region or similar sub-national entity.

- IEA Amsterdam: instrument translation and verification, international data collection quality control monitoring
- RAND Europe and Statistics Canada played an important advisory role during the revision process of these standards.

The Consortium develops the proposed set of standards in consultation with the OECD Secretariat and the Technical Advisory Group (TAG). Drafts are provided for comment to the ECEC Network, the Extended ECEC Network and in parallel to the NPMs. The Consortium then incorporates comments and determines if any standards present foreseeable difficulties or obstacles for Participants. The technical standards will then finally be adopted by the Extended ECEC Network on the TALIS Starting Strong Survey. Following the Field Trial, revisions to the standards will be implemented as necessary.

Once the standards are adopted, it is essential that all Participants follow them. Where this is not possible, Participants may apply for derogations from the standards by contacting the Consortium in writing. Likewise, where the standards stipulate that variations from them require agreement or pre-approval between the Participant and the Consortium, NPMs are asked to initiate the process and to undertake everything possible to facilitate an agreement. Where agreement between Participants and the Consortium cannot be reached, the OECD Secretariat will be asked to contribute to a resolution.

Where standards have been fully met, data will be recommended for inclusion in the datasets and analyses to produce reports. Where standards have not been fully met, the adjudication process implemented by the Consortium in consultation with the OECD Secretariat and TAG determines the extent to which the data quality has been affected. The results determine whether data can (or cannot) be recommended for unconditional use and inclusion in the datasets and consequently reporting.

Inquiries pertaining to the standards should be addressed to the OECD Secretariat at startingstrongsurvey@oecd.org and the Consortium at: startingstrongsurvey@iea-hamburg.de.

1. SURVEY ETHICS AND PLANNING

RATIONALE AND PURPOSE

The TALIS Starting Strong Survey with two target populations is a new demanding project that requires careful survey planning at the international as well as at the national levels. Similarly, all countries and organisations participating in the conduct of the TALIS Starting Strong Survey must adhere to recognised standards of ethical research practices.

SURVEY ETHICS AND GENERAL PRACTICE

Standard 1.1 Researchers⁴ and NPMs adhere to professional standards for scientifically rigorous research at all stages of the survey.

- Researchers and NPMs follow best practices in survey design, data collection and post-survey processing according to these TALIS Starting Strong Survey standards and guidelines.
- Researchers clearly and objectively describe the TALIS Starting Strong Survey's major research questions and data collection needs (*e.g.* in the framework).
- Researchers ensure that each question in the survey addresses a specific measurement goal, do not collect new data unnecessarily and balance the need for information against the effort that is required to complete additional survey questions.
- NPMs submit research plans to the applicable institutional review boards and/or ethics committees for approval and document the correspondence and outcome.
- NPMs hire or equip staff involved in design, data collection and analysis with appropriate skills to perform scientifically rigorous research.
- NPMs train staff on the importance of ethics and scientific rigor in research involving human subjects.

Standard 1.2 Researchers and NPMs have a responsibility to survey respondents and protect their data privacy.

- Researchers and NPMs avoid using practices or methods or asking survey questions that may harm, humiliate or intentionally mislead survey respondents.
- Researchers and NPMs are sensitive to social and cultural differences as well as local customs when contacting respondents and administering the survey.
- Participation in the survey should not impose an undue burden for the respondent.
- Researchers and NPMs administer the survey in such a way that it is easy and comfortable for a respondent to answer and make every effort to facilitate the data collection process for the respondent.

Standard 1.3 Researchers and NPMs respect the free will and privacy of respondents.

⁴ The term „researcher(s)“ in this document refers to all persons involved in the preparation, implementation, analysis and reporting of the TALIS Starting Strong Survey. This includes Consortium staff, OECD staff, QEG members, national centre and survey organisations staff contributing to the project.

- NPMs ensure that each respondent receives sufficient information and, where required, opportunity to give informed consent prior to participation in the survey.
- While NPMs and data collectors should attempt to avoid and convert respondent refusals, they do not allow these practices to approach harassment.

NPMS AND NATIONAL STUDY CENTRES

Standard 1.4 Each Participant should have nominated one (1) National Project Manager (NPM) no later than by 15 March 2016. The NPM has overall responsibility for implementing the TALIS Starting Strong Survey (including both target populations, if applicable), at the national level according to the standards, guidelines, procedures and timelines set by the Consortium.

- The roles, responsibilities and resources of NPMs as well as an indicative list of tasks is described in document *ECEC(2016)3 Starting Strong Survey NPM NCS roles.pdf* prepared prior to the 3rd Extended ECEC Network Meeting in Singapore, Singapore on 21-22 March 2016. The document is considered an integral part of the technical standards presented here.
- If a Participant also joined TALIS 2018, it is recommended to appoint the same NPM for the sake of maximising the synergies between both studies. Where this is not possible, the TALIS Starting Strong Survey NPM should liaise with the TALIS 2018 NPM and team in order to maximise the benefit in the use of materials, experiences and strategies applied in both surveys.
- If an NPM cannot be appointed by the stated date, the concerned Participant ensures that they are represented adequately in communication with the Consortium and at scheduled NPM meetings.

Standard 1.5 Participants implement a systematic and comprehensive knowledge transfer if the NPM is replaced before December 2019 in order to prevent the national study centre from losing information or falling behind with respect to the survey's timeline and tasks.

Standard 1.6 The NPM position is desirably full-time under stable contract conditions, minimally until December 2019, the scheduled release of the initial international report by OECD, to ensure continuity of activities over time.

- Depending on the availability of administrative assistants and senior staff for data management, sampling activities and/or field operations, NPMs time commitment could be less, but desirably not less than 50% of their time.

Standard 1.7 The NPM establishes a national study centre and ensures that qualified staff is allocated to the project (see standard 2.4).

- Since data-related tasks tend to be highly technical and require specialist skills, each Participant should appoint a National Data Manager (NDM) to provide support for the NPM with respect to data-related and technical tasks and responsibilities.
- Participants may consider appointing a National Sampling Manager (NSM) to take responsibility for all sampling-related activities, including national sample planning and stratification, frame preparation, sample selection, non-response bias analysis and communication with the Consortium's sampling team.

Standard 1.8 NPMs inform the Consortium about key staff at the national study centre. The NPM also informs the Consortium if key national study centre staff leaves the project.

- NPMs take note of the confidentiality and security requirements detailed in Section 9, specifically with respect to the required signed confidentiality agreements.

Standard 1.9 If a third party survey organisation is contracted for all or parts of the data collection work, NPMs inform the Consortium of the name, qualifications and scope of work of the survey organisation.

TECHNOLOGY AND INFRASTRUCTURE

Standard 1.10 Since the materials and tools provided by the Consortium are designed to work on Microsoft Windows PCs, international and national study centres work with PCs.

- Microsoft Windows 7 Service Pack 1, 8.1 or 10 are supported.
- The above versions of Windows should work without problems inside a virtual environment on a non-Windows host system (*e.g.* inside VMWare or VirtualBox), yet such setups have not been explicitly tested and are not actively supported.
- Older Windows versions, Apple Macintosh or Linux systems are not recommended or supported.

Standard 1.11 National study centres have a reliably working Internet connection in order to communicate with the Consortium and exchange files and documents.

Standard 1.12 National study centres have Microsoft Office 2010 or higher installed, minimally including Word (.docx format) and Excel (.xlsx format), preferably also PowerPoint (.pptx format) for the review of meeting presentations.

PILOTING, FIELD TRIAL AND MAIN SURVEY PARTICIPATION

Standard 1.13 All Participants make themselves available to participate in the pilot data collection.

- The pilot data collection requires the contribution of all Participants and should be representative of both target populations (ISCED 0.2 and centre-based services for children under 3 years), all major regions as well as key language contexts.

Standard 1.14 At the appropriate stages, national study centres provide feedback to the Consortium on the development of the framework, instruments and other content-related matters that represents the perspectives of the relevant national stakeholders.

Standard 1.15 Field Trial participation is mandatory for all Participants and all international survey options.

- This implies that 30 November 2016 is the ultimate deadline for late joining Participants and that joining past this date may only be accepted if this does not jeopardise the overall schedule and standards at the Consortium's and OECD Secretariat's discretion.

Standard 1.16 The Main Survey data collection in ECEC centres takes place between March and May 2018 for the Northern Hemisphere Participants and August to October 2018 for Southern Hemisphere Participants.

Standard 1.17 Following the Main Survey data collection, Participants are involved in the production and verification of the tables, exhibits and narrative produced for the international reports.

Standard 1.18 Data or results from the Field Trial are not disclosed to the general public, participating ECEC centres or respondents. The Field Trial is implemented to i) validate the instruments and derived measures and to ii) trial the operational procedures only.

NATIONAL OPTIONS⁵

Standard 1.19 National options do not jeopardise or endanger the completion of the international part(s) of the survey.

Standard 1.20 Only national options that are agreed upon between the national study centre and the Consortium are implemented.

Standard 1.21 National options are field trialled.

Standard 1.22 National options are agreed upon before 31 January 2017 for the Field Trial and before 30 November 2017 for the Main Survey.

- National options that have a bearing on international tools and methodologies (*e.g.* the IEA Within-School Sampling Software) are discussed at the earliest possible convenience. NPMs are asked to initiate such discussions with the Consortium.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding survey ethics and planning:

- NPM and national study centre staff nomination forms
- documented staff changes and systematic knowledge transfers
- documented participation in the target populations
- documented and agreed-upon national options

⁵ The TALIS Starting Strong Survey offers participants the opportunity to add a limited amount (not more than five minutes response time) of national questions, items or categories if the international questionnaire is not jeopardised regarding total response time.

2. COMMUNICATION

RATIONALE AND PURPOSE

The TALIS Starting Strong Survey requires high communication standards to enable smooth and transparent communication throughout its lifecycle. NPMs have to ensure that there are no communication gaps arising during absences or staff changes.

COMMUNICATION AND MEETINGS

Standard 2.1 NPMs are the primary contact persons for the Consortium regarding all TALIS Starting Strong Survey related issues.

Standard 2.2 The Consortium generally responds to any written request (*i.e.* e-mail) within one working day if at all possible or, if processing takes longer, acknowledges the receipt of a national study centre request, indicating the amount of time required to respond.

Standard 2.3 Conversely, national study centres respond to any written requests from the Consortium within one working day if at all possible or, if processing takes longer, acknowledge the receipt of a request, indicating the amount of time required to respond.

Standard 2.4 The main means of communication is e-mail and the main contacts are as follows:

- All e-mails regarding the TALIS Starting Strong Survey framework and questionnaires are addressed to startingstrongsurvey@rand.org at RAND Europe in Cambridge, United Kingdom.
- All e-mails regarding sampling-related issues are addressed to sampling@iea-hamburg.de at the IEA DPC in Hamburg, Germany with a copy to startingstrongsurvey@iea-hamburg.de.
- All other communication – or in case of doubt – should be addressed to the International Study Centre (ISC) account startingstrongsurvey@iea-hamburg.de that is accessible to all TALIS Starting Strong Survey-related staff working at the ISC in Hamburg, Germany.
- All e-mails regarding translation verification and international/national quality control monitoring of data collection are addressed to d.ebbs@iea.nl and m.djekic@iea.nl at the IEA in Amsterdam, The Netherlands.

Standard 2.5 The startingstrongsurvey@iea-hamburg.de account at the ISC is copied in on any direct NPM correspondence with Consortium partners (other than the ISC) or the OECD Secretariat.

Standard 2.6 E-mail subject lines to the Consortium include the appropriate 3-digit operational Participant code (see NPM Manual, Annex D) as well as meaningful subject lines.

- Examples of meaningful e-mail subject lines are: “XXX - Question on the sampling frame for centre-based services for under 3-year old children”.
- E-mails with highly generic subject lines such as “question” or “urgent clarification” or no subject line at all should be avoided to allow for proper and timely processing and retrieval.

Standard 2.7 NPMs ensure that all key staff at the national study centre has access to the TALIS Starting Strong Survey e-mails relevant for their area of work.

- Where possible, the Consortium recommends to set-up a central, national TALIS Starting Strong Survey e-mail project account that includes the 3-digit operational code or the Participant name, such as 3S_xxx@institute.xxx.
- If this is not possible, the NPM is responsible for organising smooth communication within the national study centre, for example during absences.

Standard 2.8 NPMs as well as key staff members that are authorised to communicate with the Consortium are proficient in English.

Standard 2.9 NPMs inform the Consortium without delay of any unforeseen issues that arise during the performance of the tasks and that may have operational implications for the Participant and/or the Consortium (e.g. delays) or on the outcomes and success of the study. The national study centre should not take decisions on substantial issues without consulting with the Consortium first.

Standard 2.10 NPMs (and other key national staff, as applicable) attend all international NPM meetings and training sessions convened by the Consortium during the survey period as indicated in the overall survey schedule.

Standard 2.11 If necessary, webinars, on-screen meetings and phone conferences can be arranged at the Consortium's discretion to clarify and discuss issues.

Standard 2.12 National study centres develop appropriate mechanisms in order to promote participation, effective implementation of the data collection and dissemination of results amongst all relevant national stakeholders.

DOCUMENT AND DATA EXCHANGE

Standard 2.13 The TALIS Starting Strong Survey uses a secure, password protected SharePoint site as the main platform for document and data exchange.

- The site is organised in a "Home" site, which is accessible to all groups and actors, as well as general "NPM" site and bilateral Participant sites/folders within, which are only accessible to the respective Participant, the Consortium and the OECD Secretariat.
- Materials such as data files, instruments and manuals are exchanged via SharePoint.

Standard 2.14 NPMs indicate to the Consortium if key staffs, other than the NPM, need access to SharePoint. Conversely, if national study centre staff leaves the project, the NPM informs the Consortium immediately.

Standard 2.15 All documents uploaded on SharePoint should follow an effective naming convention, including, where applicable, the survey phase and the revision date at the end.

- The following are examples:
 - for the pilot: 3S_PI_document_name_14Oct2016
 - for the Field Trial: 3S_FT_document_name_08May2017
 - for the Main Survey: 3S_MS_document_name_30May2018

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding communication:

- timely and effective virtual and face-to-face communication
- early indications of unforeseen problems or issues
- use of SharePoint as a document exchange platform to ensure proper management of documents and materials
- document access to SharePoint

3. SAMPLING DESIGN, WEIGHTING AND ADJUDICATION

RATIONALE AND PURPOSE

High quality, reliable and comparable data and estimates require sound field procedures and unbiased probabilistic sampling plans.

The following standards concern the sampling designs for both TALIS Starting Strong Survey target populations: ISCED Level 0.2 and services for children under the age of 3 years (U3).

TARGET POPULATION ISCED LEVEL 0.2

POPULATIONS

Standard 3.1 The 2011 edition of the International Standard Classification of Education (ISCED 2011)⁶ is the reference for the TALIS Starting Strong Survey.

Standard 3.2 The population covered by the TALIS Starting Strong Survey encompasses as many as possible of the ISCED Level 0.2 staff (as defined in the Survey Operations Procedures Unit 1 on centre sampling) and is as comparable as possible across Participants.

- *In-scope*: All persons working regularly in a pedagogical way with children of ISCED Level 0.2 within institutionalized or centre-based early education and care and their centre leaders are included. A “**centre leader**” is defined as the person with the most responsibility for the administrative, managerial and/or pedagogical leadership at the ECEC centre. As part of the leadership role, centre leaders may be responsible for the monitoring of children, the supervision of other staff, contact with parents and guardians, and/or the planning, preparation and carrying out of the pedagogical work in the centre. Centre leaders may also spend part of their time working with the children.
- *Out-of-scope*: Settings that are not institutionalized or officially registered, family-based facilities or arrangements and persons working within such settings, staff and leaders of early childhood education and care centres entirely devoted to children with special needs (cognitive, emotional, physical impairment or limitation), short-time substitute educators (to replace staff on sick leave), child-minders or other informal arrangements, volunteer persons that would occasionally come in for a special activity, and auxiliary staff (e.g. cleaners, cooking staff, etc.) that do not interact regularly in a pedagogical manner with the children are not in scope of the TALIS Starting Strong Survey.

Standard 3.3 The international survey population is defined as the international target population to maintain the best coverage of the ISCED Level 0.2 staff and centre leaders.

Standard 3.4 The national target population does not deviate from the international target population.

Standard 3.5 The national survey population is as close as practically possible to the national target population.

- *Inclusions*: To maintain comparability, no group of staff out of scope from the international survey population may be added to the national survey population.
- *Exclusions*: For reasons of practicality, safety or economy (e.g. remote centres, areas under civil unrest, natural catastrophe etc.), the national survey population may be reduced. The exclusions are

⁶ <http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>

fully documented and do not account for more than five percent of the national target population of ISCED Level 0.2 staff.

SAMPLING FRAMES

Standard 3.6 The TALIS Starting Strong Survey relies on a two-stage sampling approach. At the first stage, centres are sampled and at the second stage, eligible staff within these centres is selected. To ensure the entire coverage of the national survey population, the most recent vintage of the list of all centres offering at least one regular group of ISCED Level 0.2 education and care is obtained and used as the centre sampling frame. Similarly, the lists of staff are created at the last possible moment before within-centre sampling.

- All listings of staff must comprise all in-scope staff as indicated in the Survey Operations Procedures Unit 1 on centre sampling and not be limited to the selected or participating staff, unless all are selected.

If a comprehensive list of centres is not available or cannot be obtained, a third preceding sampling stage may need to be applied. E.g., a selection of zip-code areas from a comprehensive list of these areas will be conducted first, followed by a full compilation of eligible centres within the selected areas. In such a case, the same rigorous approach applies to this sampling stage, i.e., each eligible centre/staff member in a participating country must have a positive (and known) selection probability.

Standard 3.7 To ensure that efficient sampling can be implemented, the sampling frame at each stage of sampling must contain all data fields specified in the Survey Operations Procedures Unit 1 on centre sampling.

Standard 3.8 Information contained on the sampling frame(s) is used for quality assurance and quality control of within-centre sampling and data collection.

SAMPLE SELECTION

Standard 3.9 To ensure that the results of the TALIS Starting Strong Survey be based on samples representing the populations from which they are drawn, all samples must be drawn according to recognised probability sampling theory and practices. Non-probability sampling (e.g. quota sampling, convenience sampling) is not allowed, neither for the Field Trial nor for the Main Survey.

Standard 3.10 In order to simplify the assessment of how well the sampling frames cover their respective target populations, to ensure timely delivery of centre samples to national teams, and to standardise the transmission of information between the various within-centre sampling, collection monitoring and data processing systems, all centre samples are drawn by the Consortium.

Standard 3.11 For the same reasons, all staff samples are selected by National Study Centres using the IEA Within-School Sampling Software⁷ (WinW3S) provided by the Consortium.

Standard 3.12 All samples of staff are drawn with equal probability using software provided by the Consortium or all eligible staff members will be asked for participation.

- *Exception:* To reduce excessive response burden, staff members who are also the leader of their centre will be excused from completing the staff questionnaire as indicated in the Survey Operations Procedures Unit 1 on centre sampling.

⁷ The IEA Windows Within-School Sampling Software (WinW3S) is a software originally developed by the IEA for international large-scale assessments administered in the school context (e.g. to sample students and/or teachers within schools). This software will be adapted for the use in the TALIS Starting Strong Survey to the ECEC context allowing the sampling of ECEC staff within selected centres. However, the name of the software itself will not be changed.

Standard 3.13 While recognising the potential for response bias, in order to maintain the sample size to its highest level, non-responding centres may be replaced with an alternative selection. Replacement centres are selected at the same time as the main sample of centres is. Each sampled centre has (up to) two designated replacement centres. Only non-responding centres may be replaced; out-of-scope centres must not be replaced. To minimise the risks of inflating sampling error, replacement centres are weighted as if they had been selected in the main sample.

Standard 3.14 Non-responding staff may not be replaced.

SAMPLE SIZES

Standard 3.15 The sizes of the Field Trial samples are set at 30 centres and eight staff members per centre.

- The Field Trial sample size is intended to yield a minimum number of 100 responses per item (after considering non-response). It is assumed that every respondent answers the same set of items.
- If the Consortium sees the need of rotated questionnaire forms in the Field Trial (i.e., different items covered in different forms), the sample sizes may need to be augmented accordingly.

Standard 3.16 The sample sizes for the Main Survey are set at a minimum of 180 centres and eight staff members per centre. National circumstances may necessitate larger centre or staff sample sizes. E.g., if there are less than 180 centres in a country, all staff members may need to be asked for participation; or, if the average centre size is significantly smaller than 8 staff members, larger centre samples may be needed.

- *Exception:* After discussion with the Consortium and upon agreement, the sample sizes may be modified for a given Participant to accommodate particular national conditions.
- In any case, the resulting effective sample sizes should be equivalent to those of any other Participants following the general sampling design.

WEIGHTING AND ESTIMATION

Standard 3.17 The Consortium computes first stage (*i.e.* centres) design weights and non-response adjustment factors, second stage (*i.e.* staff) design weights and non-response adjustment factors, and final estimation weights, for each participating staff member and centre record. Weights for leader questionnaire data are equal to centre weights.

Standard 3.18 The Consortium computes coverage indices (*i.e.* the ratio of the estimated population to official or frame statistics) for each Participant. Important discrepancies between frame and survey results indicated by unexpectedly large or unexpectedly small ratios are investigated.

Standard 3.19 The Consortium computes replication weights based on Fay's variant of McCarthy's Balanced Repeated Replication (McCarthy 1966, 1969; Fay 1989; Judkins 1990).

- Ninety two (92) replicates are created for each Participant with a Fay factor of 0.5.

Standard 3.20 To ensure the unbiasedness of the estimates and to reflect the complex structure of the TALIS Starting Strong Survey samples and data, all estimates are weighted and accompanied with appropriate measure of their sampling error. Details are provided in Section 10.

Standard 3.21 For testing purposes, and as a quality control measure, all estimation and replication weights are computed by the Consortium following the Field Trial.

- These estimates are not made available to the TALIS Starting Strong Survey Participants because this preliminary data does not allow any population inferences.

RESPONSE RATES, PARTICIPATION AND ADJUDICATION

Standard 3.22 For testing purposes, and as a quality assurance measure, participation rates are computed by the Consortium following the Field Trial.

Standard 3.23 The Consortium computes weighted and un-weighted participation rates for centres and staff.

Standard 3.24 The aim of any survey is to reach 100% response of the selected respondents. The minimum participation rate expected in TALIS Starting Strong Survey is 75% of centres and 75% of staff across all participating centres.

Standard 3.25 A participating centre is one where at least 50% of the selected staff members participate.

Standard 3.26 A participating staff member is one that is administered the entire questionnaire and provides at least one response.

- This implies that imputation of partial data from administrative records will be considered non-response.

Standard 3.27 For the purposes of centre-level data adjudication derived from the centre leader questionnaire (see Table 1):

- A “participating centre leader” is one who is administered the entire questionnaire and provides at least one response; this implies that imputation of partial data from administrative records will be considered non-response.
- A “participating centre” is one whose centre leader participates in the TALIS Starting Strong Survey.

Table 1: Adjudication rules for centre-level data in the TALIS Starting Strong Survey

CENTRE PARTICIPATION (CENTRE LEADER SURVEY)		RISK OF CENTRE NON-RESPONSE BIAS	RATING
before replacement	after replacement		
≥ 75%	≥ 75%		GOOD
≥ 50% but < 75%	≥ 75%		FAIR
	≥ 50% but < 75%	LOW	FAIR
		HIGH	POOR
< 50%	INSUFFICIENT		

Standard 3.28 For the purposes of staff-level data adjudication (see Table 2):

- A “participating staff member” is one who is administered the entire questionnaire and provides at least one response; this implies that imputation of partial data from administrative records will be considered non-response.
- A “participating centre” is one where at least 50% of the selected staff participates.

Table 2: Adjudication rules for staff-level data in the TALIS Starting Strong Survey

CENTRE PARTICIPATION (STAFF SURVEY)		STAFF PARTICIPATION AFTER CENTRE REPLACEMENT	RISK OF STAFF NON-RESPONSE BIAS	RATING
before replacement	after replacement			
≥ 75%	≥ 75%	≥ 75%		GOOD
		≥ 50% but < 75%		FAIR
≥ 50% but < 75%	≥ 75%	≥ 75%		FAIR
		≥ 50% but < 75%	LOW	FAIR
			HIGH	POOR
≥ 50% but < 75%	≥ 50% but < 75%			POOR
< 50%	≥ 75%			POOR
< 50%	< 75%	INSUFFICIENT		

Standard 3.29 The Consortium, in consultation with the OECD Secretariat, formulates a recommendation for the adjudication of the national samples based on the rules on sample returns and participation rates displayed in the above tables.

Standard 3.30 Following **Standard 3.29** on adjudication, Participants are encouraged to submit a “Non-response bias analysis” to the Consortium. Final sample adjudication ratings depend on the conclusions reached by the non-response bias analysis, and on the assessment made by the Sampling Referee.

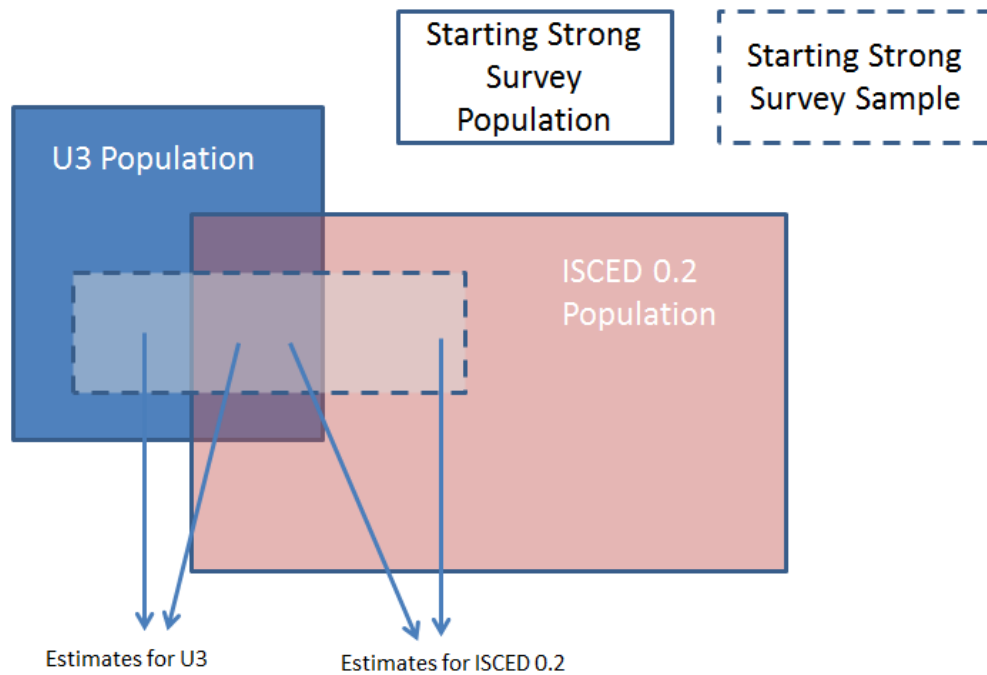
TARGET POPULATION: CENTRE-BASED SERVICES FOR CHILDREN UNDER THE AGE OF 3 YEARS (U3)

Standard 3.31 The standards given above for the target population ISCED Level 0.2 of the TALIS Starting Strong Survey are also applied to the U3 target population, with changes as necessary (stated below).

Standard 3.32 The population covered by U3 of the TALIS Starting Strong Survey encompasses as many as possible of staff working in the centres as defined in the Survey Operations Procedures Unit 1 on centre sampling and is as comparable as possible across Participants.

- *In-scope*: All persons working regularly in a pedagogical way with children under the age of 3 years within institutionalized or centre-based early education and care and their centre leaders are included.
- *Out-of-scope*: identical to Standard 3.2

Figure 1: Surveying U3 and ISCED Level 0.2



Standard 3.33 The results from U3 are adjudicated independently from those of the ISCED Level 0.2 target population.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding sampling design, weighting and adjudication.

- Survey Operations Procedures Unit 1 on centre sampling and sampling forms
- face-to-face consultations
- monitoring of sample implementation
- adjudication process
- report on sampling and weighting for each Participant given to the concerned Participant and to the OECD Secretariat, prepared independently for the Core Survey and the international option

4. INSTRUMENT ADAPTATION, TRANSLATION AND VERIFICATION

RATIONALE AND PURPOSE

These standards ensure that national translations are consistent with the international versions of the TALIS Starting Strong Survey instruments, while allowing for cultural adaptations where necessary. The TALIS Starting Strong Survey questionnaires are subject to a stringent translation, adaptation and verification procedure prior to both the Field Trial and the Main Survey, in order to assure that each Participant's centre leader and staff member receive equivalent questions and that the data collected is internationally comparable. The external verification of adaptations, translation and layout are part of the survey quality assurance procedures. Although the questionnaires will be administered online, due to expansion rates and differences of word counts of languages, the layout will need to be checked for issues with visibility of text in menu options, buttons, and etc.

The following standards concern the TALIS Starting Strong Survey instruments (Staff and Leader Questionnaire) for both target populations.

LANGUAGES

Standard 4.1 The TALIS Starting Strong Survey questionnaires are administered in a common (state) language.

Standard 4.2 If there is more than one common (state) language, countries are encouraged to use all of them. The NPMs are responsible in selecting the language(s) for use in the questionnaires. In making this decision, NPMs should take into consideration the following: languages used in ECEC centres, size of language groups in the country, and political sensitivities. The decision of which language(s) that will be administered is to be made prior to the Field Trial and agreed upon by the Consortium.

Standard 4.3 Unless otherwise agreed upon, all relevant language versions of instruments are developed according to the following standards for both the Field Trial and the Main Survey.

NATIONAL ADAPTATION OF INSTRUMENTS AND MANUALS

Standard 4.4 Each Participant's questionnaires include all introduction texts and questions in the international source version as well as the corresponding notes, instructions, response categories and coding schemes.

- Although the main data collection mode is electronic (online), corresponding paper versions should contain the above information.
- This implies that raw data imputation from sources external to the TALIS Starting Strong Survey is not permitted.

Standard 4.5 Questionnaire items used for comparisons with TALIS 2018 are administered unchanged from the TALIS 2018 administration.

- Substantial parts of the TALIS Starting Strong Survey instruments are identical to those used in the TALIS 2018 survey. All of these parts (instructions, question stems, items) should be used exactly as they appear in the TALIS 2018 instruments to ensure comparability of the data between the two surveys. This standard does not affect TALIS Starting Strong Survey specific and necessary adaptations of language and terminology as long as the original meaning of the questionnaire item is preserved.

- Exceptions to this standard are limited to substantial translation and/or adaptation errors in the TALIS 2018 questionnaires.

Standard 4.6 The questionnaires are equivalent to the international source versions. If needed, adaptations to the national context are made, documented and agreed upon between the national study centre and Consortium.

- This applies for the questionnaires used in both target populations.

Standard 4.7 Adaptations to the introduction text of the questionnaires or to the Cover Letters for online participation are properly documented in the National Adaptation Forms by the NPM and approved and transferred to the IEA eAssessment System by the Consortium..

Standard 4.8 Adaptations to the questionnaires for the TALIS Starting Strong Survey target population of centre-based services for under 3-years old children are carried out (documented and approved), if applicable, simultaneously when the TALIS Starting Strong Survey ISCED Level 0.2 survey instruments are adapted in the IEA eAssessment System.

Standard 4.9 National adaptations have to be documented in the National Adaptation Forms and transferred to the IEA eAssessment System for each language in which the survey is administered.

However, additional language versions are created only after all structural adaptations for the first language version are approved.

- This means that all structural modifications will be copied to the additional language version(s) and that NPMs only need to adapt the international structure to their national needs once.

Standard 4.10 Questions or adaptations unique to the target population of centre-based services for under 3-years old children require documentation in the National Adaptation Forms and in the IEA eAssessment System.

Standard 4.11 The Centre Coordinator Manual is equivalent to the source version. Adaptations to align the content of the Centre Coordinator Manual to the national context are made by the national study centre, if needed, but are subject of discussion and approval by the Consortium. This manual will not be subject to translation or layout verification.

- The key aspects (*i.e.* the criteria for staff eligibility, the number of staff to be sampled from each centre, the definitions, codes and instructions related to the coding of the Staff Listing and Tracking Forms, including examples to illustrate these codes) should follow procedures set by the Consortium and will be checked by International Quality Observers (IQOs).

NATIONAL EXTENSIONS OF INSTRUMENTS

Standard 4.12 National extensions and adaptations to the instruments are kept to a strict minimum and require review and pre-approval by the Consortium.

Standard 4.13 National extensions and adaptations do not jeopardise or endanger the completion of the international part of the instruments.

Standard 4.14 National extensions are generally included at the end of the questionnaires in order to ensure the comparability of the international items.

TRANSLATION OF INSTRUMENTS AND MANUALS

Standard 4.15 All questionnaires are translated into the language(s) of administration in order to be equivalent to the international source version.

- The source version of the Leader Questionnaire, the Staff Questionnaires, the Combined Centre Questionnaire⁸ and the Combined Plus Centre Questionnaire⁹ are provided by the Consortium in English prior to the Field Trial and the Main Survey.

Standard 4.16 Participants are responsible for conducting translations and documenting the process as well as any deviations from the English language source version.

- The decentralised translation requires translation and translation review at the national level using the English source language version.
- The NPM selects a minimum of two persons (translator and reviewer) for preparing a national version of each survey instrument, supervises the process of national adaptation and translation, and the documentation of these in National Adaptation Form(s) and the IEA eAssessment System.
- English speaking Participants follow the same guidelines and verification procedures as Participants producing instruments in other languages, focusing on the national adaptations of the instruments.

Standard 4.17 Unless otherwise agreed-upon, participants are also responsible for translating the Centre Coordinator Manual into the common (state) language(s) and the translation is to be consistent with the international English source version.

TRANSLATION VERIFICATION

Standard 4.18 The TALIS Starting Strong Survey national study centres prepare all translations of the TALIS Starting Strong Survey materials in the IEA eAssessment System for translation verification within the agreed upon timeline and sequence.

Standard 4.19 Translation verification commences only after all adaptations have been agreed upon and after translation is completed.

Standard 4.20 National study centres implement the translation verifiers' comments as necessary and appropriate or, in case of disagreement, document the reasons and rationale for not following the verifiers' advice.

Standard 4.21 The outcomes of translation verification and national adaptation processes are reported by the Consortium to the OECD Secretariat after the Field Trial and the Main Survey.

Standard 4.22 Translations of the Centre Coordinator Manual are not subject to translation verification.

LAYOUT VERIFICATION OF ONLINE AND PAPER QUESTIONNAIRES

Standard 4.23 The layout, formatting and pagination (of paper questionnaires) of all questionnaire material is the same as in the source version.

Standard 4.24 National study centres submit all national versions of questionnaire materials for paper layout verification (optical check) and correct discrepancies, mistakes and errors identified by the Consortium.

Standard 4.25 Paper layout verification commences only after the translation verification process is completed.

⁸ The Combined Centre Questionnaire is provided for for one-person settings where applicable questions from the Staff Questionnaire and a number of key questions from the Leader Questionnaire are combined and administered.

⁹ The Combined Centre Questionnaire Plus will be administered only in Israel ISCED Level 0.2 and includes the majority of questions from the Staff Questionnaire and in addition those sections of the Leader Questionnaire that were judged as meaningful in their national context.

Standard 4.26 Online layout verification commences only after the paper layout verification process is completed.

Standard 4.27 National versions of the Centre Coordinator Manual are not subject to layout verification.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding instrument adaptation, translation and verification:

- documentation of national adaptations in the National Adaptation Forms and transfer to the IEA eAssessment System
- Consortium pre-approval of proposed adaptations and extensions
- translation verification and follow-up
- paper and online layout verification and follow-up
- submitted questionnaires (paper and electronic) as used in the data collection
- International Quality Observers' documentation of the utilisation of the Main Survey translation verification results (for more complete description of IQO tasks see section 7)

5. CENTRE COOPERATION AND WITHIN-CENTRE SAMPLING

RATIONALE AND PURPOSE

Obtaining centre co-operation, preparing centres, centre leaders, staff members and Centre Coordinators for their involvement in the TALIS Starting Strong Survey is the key to obtaining high participation rates, fully completed instruments and high quality data, which are necessary to embark on meaningful analysis. Standardised procedures for contacting centres and preparing the within-centre sampling, in co-operation with trained Centre Coordinators assure appropriate and accurate administration across Participants.

OBTAINING CENTRE COOPERATION AND ETHICS

Standard 5.1 National study centres obtain permission for surveying centre leader/managers and centre staff in sampled ECEC centres from applicable national and/or regional authorities and bodies responsible for ECEC.

Standard 5.2 National study centres establish a written plan/strategy for reaching centre co-operation and participation and obtain support from centre authorities and officials, unions, and any other organisations or individuals who are likely to encourage or foster the participation of selected centres.

Standard 5.3 National study centres submit and discuss their plan/strategy to gain/raise participation of centres, centre leaders and staff members with the Consortium.

Standard 5.4 National study centres establish the first contact with centres in writing by sending an initial centre contact letter that provides all the necessary information about the TALIS Starting Strong Survey to the leader/manager of the centre or the centre governing authorities, requesting the centre's participation.

- The initial contact letter to the centre should contain the following documents/information:
 - a comprehensive document or brochure that outlines the purpose and goals of the project, the intended data use and the confidentiality policy
 - key administration information including dates, tasks, expected response burden (*i.e.* number of involved staff members and time required to complete the questionnaires) and the required deliverables
 - the Centre Coordinator Manual, if available at this stage
- The initial contact letter should indicate endorsement of the research by applicable international and national authorities, unions and organisations.

Standard 5.5 If all persuasion strategies and communication channels have been used to obtain participation of the sampled centres but it still refuses, the national study centre contacts the first designated replacement centre. If that centre also refuses participation, national study centres contact the second replacement centre.

Standard 5.6 Only refusing centres may be replaced. Centres found to be out-of scope during data collection are not to be replaced (cf. Standard 3.13).

Standard 5.7 National study centres document the participation status of each centre in the Centre Tracking Form and in the IEA WinW3S software as described in the operational manuals.

CENTRE COORDINATORS

Standard 5.8 National study centres, in consultation with the centre leader or the centre authorities, identify a suitable Centre Coordinator for each centre in the sample.

- Centre Coordinators, for example, may be active or retired centre leaders or staff members, guidance counsellors or administrative or management personnel in the centre who, ideally, do not actually participate in the survey.
- For reasons of confidentiality, and in order to maximise endorsement by staff members, centre leaders/managers may be unsuitable for the role of Centre Coordinator.
- As an alternative, a member of the national study centre or a person from an external agency who is experienced in working with ECEC centres, centre leaders/managers and staff members, may fill the role of the Centre Coordinator.

Standard 5.9 Centre Coordinators have overall responsibility for liaising with the national study centre, liaising with all applicable individuals within the centre, coordinating the accurate listing of staff members and their characteristics, verifying that the materials received from the national study centre are complete, ensuring the correct distribution of materials, and ensuring/monitoring the timely completion of questionnaires (to all extents possible).

Standard 5.10 National study centres provide the Centre Coordinator Manual and training to Centre Coordinators.

- Training is predominantly provided to avoid listing errors and incorrect data collection that may eventually result in the need to drop data.
- Training can be organised in different ways but organising face-to-face training for all Centre Coordinators is the most preferable way. Details are to be found in the operational manuals.
- The training should include a discussion of all survey-related aspects relevant to Centre Coordinators as outlined in the NPM manual and hands-on exercises in preparing Staff Listing Forms, in completing Staff Tracking Forms, and in any other applicable procedures.
- If a face-to-face training is not manageable, the preferred alternative for training Centre Coordinators is an interactive online training.

WITHIN-CENTRE LISTING AND SAMPLING

Standard 5.11 National study centres request the number of eligible staff members from participating centres to prepare a sufficient number of Staff Listing Form sheets unless listing happens electronically.

Standard 5.12 Centre Coordinators are responsible for listing all eligible staff members on the Staff Listing Forms following the definition and guidelines given in the Centre Coordinator Manual.

Standard 5.13 National study centres thoroughly scrutinise all returned Staff Listing Forms for completeness and plausibility, re-contact Centre Coordinators in cases of possible errors or flaws (most importantly, but not limited to, related to under-coverage).

- All staff member listings must comprise all in-scope staff members as indicated in the Survey Operations Procedures Unit 1 on centre sampling and not be limited to the selected or participating staff members, unless all staff members are selected.

Standard 5.14 National study centres use the IEA WinW3S software to sample staff members in accordance with the defined international sample design.

Standard 5.15 All centres and staff members are identified using a hierarchical ID numbering system defined by the Consortium.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding centre cooperation and within-centre sampling:

- documented national study centre outreach strategies and endorsement/support of the research by relevant organisations and individuals
- comprehensive initial contact to centres
- trained Centre Coordinators
- IEA WinW3S software, which assists the national study centres in sampling staff members, produces all necessary forms and labels to identify and track staff members, stores all relevant tracking information of staff, and suppresses staff member names before submission of data to Consortium.
- review and scrutiny of returned Staff Listing Forms by national study centres
- International Quality Observers' documentation of the listing activities for the Main Survey

6. DATA COLLECTION AND PARTICIPATION MONITORING

RATIONALE AND PURPOSE

The standards in this section describe the online and paper data collection, rules for material printing, packaging and shipping as well as how to continuously monitor the participation rates as instruments are returned to the national study centres.

To ensure comparability between the paper and online questionnaires, it is of importance that the questionnaires across administration modes are identical in content and as similar as possible in layout and presentation.

Closely following the survey schedule and providing sufficient time for centre leaders and staff to complete the questionnaires contributes to achieving high participation rates. Actively monitoring the participation of centres and more specifically participation of centre leaders and staff members during data collection is the only way of detecting reluctant participation early and consequently prompting further efforts to raise participation.

PREPARATION, ADAPTATION AND LANGUAGE CONVERSION

Standard 6.1 Regardless of the data collection mode (online or paper), all adaptations are documented by the National Study Centre using National Adaptation Forms and transferred to the IEA eAssessment System by the International Study Centre.

Standard 6.2 Regardless of the data collection mode (online or paper), all translations are done using the IEA eAssessment System.

Standard 6.3 Online instruments have to be structurally equivalent and linguistically identical to the paper instruments. All adaptations and extensions made for the paper version have to be reflected in the online instruments as well.

Standard 6.4 National study centres are responsible for converting international questionnaires to the national version, which includes documentation of adaptations/extensions in National Adaptation Forms as well as translation of text passages from the international questionnaires using the IEA eAssessment System provided by the Consortium.

Standard 6.5 National study centres are responsible for translating and verifying text passages exclusively used in the online mode (*e.g.* the text on a “Next” button).

Standard 6.6 National study centres are responsible for translating and verifying text passages exclusively used in the paper mode (*e.g.* the skip instructions for filter questions).

Standard 6.7 The conversion to the online instruments starts only after adaptation, translation and layout verification of the paper questionnaires has been finalised.

Standard 6.8 National study centres are responsible for a complete within-country optical comparison between the paper and the online mode.

Standard 6.9 National study centres submit the verified national paper questionnaires and the Consortium will repeat the optical comparison prior to approving the paper questionnaires for further printing and distribution to respondents.

Standard 6.10 For the online data collection, national study centres produce the necessary number of cover letters and use the labels provided by the IEA WinW3S software or equivalent means to personalise cover letters (*i.e.* add names, IDs and passwords).

Standard 6.11 For the online data collection mode, cover letters for staff members and the centre leader are provided in sealed envelopes if confidentiality rules or concerns dictate this.

Standard 6.12 For the collection of online data, cover letters can only be sent out to centres once the online questionnaires are finalized.

MATERIAL PRINTING, PACKAGING AND SHIPPING OF PAPER QUESTIONNAIRES AND COVER LETTERS

Standard 6.13 Once the translated, verified and laid-out version of the instruments are produced and approved by the Consortium, national study centres produce the necessary amount of paper instruments and use the labels provided by the IEA WinW3S software or equivalent means to personalise questionnaires (*i.e.* add names, IDs and passwords).

Standard 6.14 Questionnaires are professionally printed using high quality white paper. All questionnaires are designed to output correctly as letter or A4 sized, saddle-stitched booklets (that is, tabloid or A3 sheets folded in half). Alternatively, instruments can be duplex printed onto A4 or letter-sized sheets and stitched at least twice.

Standard 6.15 Material send-out packages to centres, addressed to the Centre Coordinator, contain a copy of the Staff Tracking Form, one personalised Staff Questionnaire or cover letter for each staff member listed on the Staff Tracking Form, one personalised Leader Questionnaire, and a list of the contents of the package to check the completeness of the materials.

Standard 6.16 Materials are sent at the appropriate time before the data collection period and national study centres request a confirmation of the receipt and completeness of the materials from the Centre Coordinator.

Standard 6.17 For the return of paper questionnaires, staff members are provided with pre-paid envelopes addressed to the national study centre if confidentiality rules or concerns dictate this.

DATA COLLECTION AND PARTICIPATION MONITORING

Standard 6.18 Where prerequisites and agreement of centres and individuals permits, the default method of data collection is by self-administered online questionnaires.

Standard 6.19 National study centres actively inquire whether centres and respondents within centres are able to respond to the questionnaires over the Internet before sending materials.

Standard 6.20 Paper instruments are prepared and dispatched to serve as a fall-back in case of technical issues (*e.g.* firewalled access) or respondents refuse to answer the questionnaires on line.

- This applies even if national study centres initially expect to collect 100% of the questionnaires on line.

Standard 6.21 To ensure consistency and smooth operations, national study centres use the IEA Online Survey System software to administer the online data collection. The system is hosted on servers operated by the Consortium.

- No other software products are permissible.

Standard 6.22 The Consortium is responsible for hosting questionnaires, storing data, maintaining data security, backing up data and ensuring service availability to the extent reasonably possible.

Standard 6.23 For paper questionnaires, national study centres monitor and track the return status of the completed instruments as they arrive from centres and individuals in the IEA WinW3S software, minimally weekly, and review the participation information and estimates as provided in the software.

Standard 6.24 In addition to monitoring the return of paper questionnaires, national study centres monitor the participation in the online data collection closely, minimally weekly, and follow-up to non-responding Participants.

Standard 6.25 During the administration of the Field Trial and the Main Survey, national study centres submit weekly status reports on survey participation to the Consortium.

Standard 6.26 Centre Coordinators distribute questionnaires and/or online data collection cover letters to sampled staff members and centre leaders, collect returned paper questionnaires (unless these are returned directly to the national study centre) and record the actual or reported participation on Staff Tracking Forms.

Standard 6.27 During the data collection phase, national study centres are available to answer Centre Coordinators' respondents' (centre leaders and staff) questions when they are in doubt about any aspect of the questionnaire or if they would like more information about the questionnaire or the study in general.

- In person support is provided minimally by phone (as indicated in the questionnaire introductions) during normal office hours.
- Ideally, additional support is provided via e-mail for respondents to be answered within one working day.

Standard 6.28 Centre Coordinators specifically ensure that the questionnaires/cover letters are only distributed to the designated sampled staff members, according to the information on the label of the questionnaire/cover letter.

Standard 6.29 Non-responding or refusing staff members are not to be replaced by any other staff member, sampled or not.

Standard 6.30 National study centres implement effective follow-up and non-response conversion efforts to improve response, utilising support from pertinent authorities, organisations and individuals as needed.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding data collection and participation monitoring:

- adaptation and translation of the questionnaires within one system
- full optical check between the online and paper instruments before printing the paper questionnaires
- personalised questionnaires or cover letters
- accurate and confirmed material preparations and dispatch
- appropriate measures to ensure the confidentiality of responses
- regular participation monitoring by the national study centre to spot issues with reluctant participation as early as possible
- weekly reporting of the data collection progress to the Consortium
- the Online Data Monitor of the IEA Online Survey System enables national study centres to monitor participation in real-time
- fall-back paper questionnaires.

7. OBSERVING THE QUALITY OF DATA COLLECTION

RATIONALE AND PURPOSE

The TALIS Starting Strong Survey quality control programme is implemented during survey administration in order to i) ensure the high quality of the data collection (National Data Collection Quality Observation), and ii) provide documentation on how the standardised international data collection procedures were followed (International Data Collection Quality Observation and a Survey Activities Questionnaire).

Quality control in the TALIS Starting Strong Survey is composed of three main parts: (1) organisation and oversight by the Consortium of an international programme comprising centre and national study centre visits conducted by International Quality Observers (IQOs); (2) quality control at the national level; and (3) a follow-up online Survey Activities Questionnaire seeking experiential information from NPMs.

INTERNATIONAL DATA COLLECTION QUALITY OBSERVATION

Standard 7.1 The Consortium conducts an independent International Quality Control programme based on standardised materials and procedures to document the Main Survey data collection activities.

Standard 7.2 IQOs are contracted by and report exclusively to IEA Amsterdam.

Standard 7.3 The Consortium conducts an international training session for IQOs providing relevant support materials for the meeting.

Standard 7.4 The IQOs will collect information on the implementation of the survey within centres by interviewing the Centre Coordinator.

Standard 7.5 NPMs will support IQOs during their in situ visits and provide the necessary information required for IQO task completion.

Standard 7.6 For each Participant, 20 centres sampled for the Main Survey are selected and visited by IQOs to observe the administration of the TALIS Starting Strong Survey instruments.

- International Data Collection Quality Observation is not conducted for the Field Trial.
- A failure to meet the international quality control standards during the Main Survey may lead to a corresponding recommendation for annotations in publications.
- The national study centre provides the Consortium with the assistance required to implement the centre visits effectively. This includes providing a list of participating centres and selecting (in consultation with the IQO) the centres to be visited for international quality observation.
- Irrespective of whether a Participant conducts the study in one target population or in both, a total of 20 centres will need to be visited by the IQO during the Main Survey. The Consortium will advise on appropriate and proportional allocation.

NATIONAL DATA COLLECTION QUALITY OBSERVATION

Standard 7.7 Participants are required to appoint one or more National Quality Observers (NQOs) and implement National Data Collection Quality Observation, at both stages: the Field Trial (50% of the sampled centres or at least 10), and the Main Survey (10% of the sampled centres or at least 20). The design of the National Quality Control programme is at the discretion of each Participant. NPMs must summarise and report salient findings to the Consortium within the relevant section of the Survey Activities Questionnaire.

SURVEY ACTIVITIES QUESTIONNAIRE

Standard 7.8 NPMs complete the Survey Activities Questionnaire (in consultation with the National Data Manager, key national study centre staff, or if appropriate, the NQO) after the Field Trial and Main Survey. This will help document survey activities at the national level.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding monitoring the quality of data collection:

- Survey Activities Questionnaire (Field Trial and Main Survey)
- International Quality Observer Manual and forms (Main Survey)
- In-person training session for International Quality Observers (Main Survey)
- Report based on the data collected by IQOs to be reviewed during the data adjudication process (after the Main Survey)

8. DATA CAPTURE OF PAPER INSTRUMENTS, VERIFICATION, SUBMISSION AND MANAGEMENT

RATIONALE AND PURPOSE

To ensure the comparability of the data, uniform methods of data capture of paper instruments and of data editing need to be applied in all participating countries. The data needs to be properly verified and edited to ensure it is free of capture errors, so that a reliable database is available for international analysis. All data files including documentation have to be sent to the Consortium on time.

DATA CAPTURE

Standard 8.1 The default method for data capture from any paper questionnaires is by manual (*i.e.* human) key data entry.

Standard 8.2 National study centres are responsible for manual data capture from paper instruments and for allocating sufficient staff to this task.

Standard 8.3 National study centres train data entry personnel thoroughly using mock materials, advice provided as part of international operational trainings and applicable section of the international operational manuals.

Standard 8.4 National study centres constantly monitor the data capture process, the key operators and the quality of their work by inspecting and verifying data against source instruments as needed.

Standard 8.5 Data are entered exactly as they appear in the instrument, ignoring any surrounding questions. Data entry staff does not interpret, guess, impute, complete or otherwise correct data.

Standard 8.6 National study centres use the IEA Data Management Expert (DME) software made available by the Consortium to ensure that the manual data capture is in full compliance with the TALIS Starting Strong Survey standards.

DOUBLE/RELIABILITY DATA CAPTURE

Standard 8.7 National study centres implement double data capture of non-blank questionnaires.

- Double data capture has to be done independently by two different persons. A check which is available in the data entry software (DME) will verify this.
- For the Field Trial, all non-blank Leader Questionnaires and a minimum of 100 Staff Questionnaires are double captured. The amount of double captured Staff Questionnaires should be evenly divided across the different Forms. (e.g. when Form A, B and C available, at least 33 of each should be double punched).
- For the Main Survey, national study centres will double capture at least 100 non-blank Leader Questionnaires and at least 5% of all non-blank Staff Questionnaires (if the total number of paper Staff Questionnaires is greater than 2000) or at least 100 non-blank Staff Questionnaires (if the total number of paper Staff Questionnaires is less than 2000).
- If a Participant conducts the survey in both target populations, double data capture has to be conducted for ISCED 0.2 only, provided that the exact same key operators are responsible for the capture of data for both target populations.

Standard 8.8 Each key operator participates in this double data capture exercise and the distribution of questionnaires for double capture to the operators should be uniform.

Standard 8.9 Double data capture starts as soon as possible in the process to identify systematic problems and misconceptions across operators or problems with particular operators as early as possible.

- This implies that the first batches of paper questionnaires returned from the field are subjected to double data capture.
- Should operators have to be retrained because of systematic problems, those questionnaires entered by them need to be re-entered.

Standard 8.10 The error rate (number of discrepancies divided by number of data values entered times 100) between the main and the completed double data capture is less than 1%.

Standard 8.11 Where double data capture quality requirements have not been met across the key operators, the Consortium may require, at its discretion, the complete re-capture of all questionnaire data or full verification and reconciliation through inspection.

- Where the lack of quality can be clearly attributed to individual key operators, the Consortium may limit the re-capture and verification/reconciliation to the work of the concerned operator(s).

Standard 8.12 All identified errors and discrepancies are resolved by consulting the original instruments and tracking forms, and correcting the errors in the data capture files. This applies only if *all* paper-based instruments were captured twice in contrast to double capturing a *subset* of paper instruments only.

- Where less than all paper questionnaires are double-captured, no correction of capture mistakes must occur as the raw discrepancy coefficient (*i.e.* before any correction) is used as a quality indicator of data capture accuracy and to assess the need to re-capture paper instruments.

DATA VERIFICATION

Standard 8.13 National study centres verify the data constantly while capturing, minimally weekly, and again before submission using the available checks in the software provided by the Consortium and following the instructions in the operational manuals.

- Minimally, the data are verified using the built-in checks in the IEA DME software; these are i) a unique ID check, ii) a valid value check for nominal/ordinal variables and iii) a valid range check for continuous variables.

Standard 8.14 Data verification is made by referring back to the original instruments if necessary.

Standard 8.15 National study centres do not otherwise “clean” or “edit” their sample and response data unless instructed to do so in the operational manuals or as explicitly agreed with the Consortium.

DATA SUBMISSION, PROCESSING AND ARCHIVING

Standard 8.16 National study centres submit all data and all required documentation according to the data management manual and following the file formats described there.

Standard 8.17 National study centres submit Field Trial data and documentation within three (3) weeks after the scheduled end of the data collection, *i.e.* on or before 30 June 2017.

Standard 8.18 National study centres submit Main Survey data and documentation within six (6) weeks after the scheduled end of the data collection, *i.e.*

- on or before 15 June 2018 for all Northern Hemisphere Participants
- on or before 15 November 2018 for all Southern Hemisphere Participants

Standard 8.19 The Consortium maps the nationally adapted variables and recodes these into the international variables, where applicable and possible, during the processing at the international level. National extensions remain as they are and are included in national dataset which are sent back to countries.

Standard 8.20 After data and document submission, national study centres (more specifically the National Data Manager) are available for a minimum of three months to respond to the Consortiums' data queries and to resolve data discrepancies.

Standard 8.21 National study centres scrutinise their own processed draft data products as received from the Consortium with respect to processing errors, plausibility and correct mapping of national adaptations to international variables.

Standard 8.22 National study centres securely store the Field Trial paper questionnaires as well as all original listing and tracking forms minimally until 31 March 2018.

Standard 8.23 National study centres securely store the Main Survey paper questionnaires as well as all original listing and tracking forms minimally until 31 December 2019.

- The Consortium, at its discretion, may request scanned or hard copies of some or all of these materials as necessary for the purpose of quality control.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding data capture of paper instruments, verification, submission and management:

- review of national adaptations from a data perspective prior to implementation
- IEA DME software, which includes checks and reports of data inconsistencies and problems
- national study centre review of check reports on a regular basis and correction of data before submission
- material receipt checks for completeness of data and documentation
- Consortium monitoring the data capture accuracy achieved by Participants
- Consortium processing and checks to identify residual issues not previously addressed by the national study centre
- additional data checks and cleaning logic at the international level with reports to Participants for commenting and/or correction

9. CONFIDENTIALITY, SECURITY AND PREPARATION OF THE INTERNATIONAL DATABASE

RATIONALE AND PURPOSE

To ensure high participation rates for the TALIS Starting Strong Survey, the confidentiality of the respondents has to be protected. This affects the distribution and collection of questionnaires, data capture at the national study centre, data submission to the Consortium and some additional disclosure avoidance measures before publication of the international database. Additionally each Participant may have to meet certain confidentiality criteria posed by national laws and regulations. The Consortium needs to be made aware of these where they affect the sharing of the TALIS Starting Strong Survey data, so that they can be addressed accordingly.

CONFIDENTIALITY

Standard 9.1 To ensure confidentiality, all staff lists or any other lists including direct identifiers such as names or other individual identifying information such as birth dates etc. are to be treated securely and strictly confidential at all times.

- Over and beyond this requirement, NPMs are responsible for ensuring that all storage, confidentiality and privacy issues comply with national legislation.

Standard 9.2 All approved project staff working on the TALIS Starting Strong Survey at the national study centre or a sub-contracted survey organisation must understand and obey confidentiality rules and practices in survey research and, regardless of their organisational affiliation, sign a confidentiality agreement or affidavit of nondisclosure in which they agree that they will not i) reveal the content of any confidential, secured or embargoed material or data, ii) make any disclosure whereby a survey respondent or his/her related data could be identified, iii) permit anyone other than the individuals under the same confidentiality agreement to access TALIS Starting Strong Survey materials, data or reports.

- A confidentiality agreement template is included in the NPM manual and also available on SharePoint.
- The Consortium requests hard copies or scans of signed confidentiality agreements.

Standard 9.3 The national study centre exports the WinW3S database before its submission to the Consortium in order to suppress direct identifiers (*i.e.* first and last names) collected and used during the within-centre sampling and collection.

SECURITY AND INTEGRITY

Standard 9.4 Data capture and management is carried out on the premises of the NPM's organisation or contracted survey organisation in order to minimise the number of, or even rule out the existence of, paper materials and data records outside of the NPM's reach and control.

Standard 9.5 All TALIS Starting Strong Survey data and materials, regardless of whether they are designated as secure/embargoed or not, are kept confidential and stored securely at all times.

Standard 9.6 Access to physical materials and electronic files is restricted to approved project staff under the above confidentiality agreements.

Standard 9.7 Databases and reports labelled “confidential” or “under embargo” are kept confidential until their public release by the OECD. Participants are directly liable for the security of the data and reports during that period.

Standard 9.8 Transfers of data on portable media or via electronic means between national organisations and between the Participant and the Consortium must be made through secure and encrypted channels.

- In particular, national study centres use the secure SharePoint site to upload and download data, documents and reports.

Standard 9.9 Data and materials outside of the NPMs secure premises (*e.g.* data on laptops or USB sticks) must be encrypted and protected in case said devices are lost or stolen.

AVAILABILITY

Standard 9.10 NPMs and/or subcontracted survey organisations ensure the continued availability of all data and materials, preventing service disruptions for example due to power outages and hardware failures, by means of appropriate failover and backup systems.

PREPARATION OF THE INTERNATIONAL DATABASE

Standard 9.11 Each Participant provides the Consortium with early notification of any rules affecting the disclosure and sharing of TALIS Starting Strong Survey response data and its derived variables or codes.

- Participants carefully review the information collected through the instruments and survey operations and provide a description of the affected variables to the Consortium.

Standard 9.12 Based on confidentiality regulations, each Participant is responsible for either i) implementing any agreed confidentiality measures in its micro-data file before submission to the Consortium or ii) instructing the Consortium on how to implement the methods and modifications in the Participant database, where complexity permits this, before release to other Participants or to the public.

- National data are not released to other Participants or the public until Participants have been given an opportunity to review and comment on their own national data and until the release of such data has been approved by the national authorities, where applicable.

Standard 9.13 All confidentiality measures implemented in the micro-data prior to the submission to the Consortium are fully and properly documented for Consortium review and commenting.

Standard 9.14 One of the fundamental objectives of the TALIS Starting Strong Survey is to provide data for comparative analysis. Therefore, the TALIS Starting Strong Survey public-use data file contains micro-data from all Participants in the project, provided data quality standards are met.

Standard 9.15 Participants who decide to withdraw data must inform the Consortium before 30 June 2019 and **only** prior to obtaining access to data from other Participants.

- A deadline and procedures for withdrawing national data from the international micro-level database (the “international database”) is agreed upon by the Consortium and the OECD Secretariat. The indicative date (to be confirmed) is: 30 June 2019.
- Withdrawn data is not made available to other Participants or the public.
- Should the Participant decide later on to make the data available again, the Consortium needs to be notified at the earliest possible point in time and will decide at its discretion whether data can still be included in data products.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding confidentiality, security and preparation of the international database:

- documented confidentiality agreements signed by national study centre staff
- security of confidential, secure and embargoed data and materials
- protection of personally identifying data
- documented confidentiality rules and sharing limitations

10. DATA ANALYSIS AND REPORTING

RATIONALE AND PURPOSE

Standards on data analysis and reporting will ensure the application of proper analysis techniques when using TALIS Starting Strong Survey data, accounting for its complex sampling design. They will aim for consistency and appropriateness of the computational routines, and use of language that avoids causal interpretation of results. The following standards apply to the teams computing and assembling the tables as well as the narrative and interpretations for the TALIS Starting Strong Survey international report, to the national staff preparing their national report, or any other individual conducting secondary analysis with TALIS Starting Strong Survey data later on. The international database is accompanied by a User Guide which describes the international database and explains how tables from the international report were computed.

DATA DISSEMINATION AND REPORTING

Standard 10.1 The OECD is responsible for reporting primary analysis results and releasing the data to the public. Embargoes apply to the reporting by parties other than the OECD.

- The OECD prepares and publishes the international report prior to the release of data for public use.
- No national teams or individuals shall have the right to publish, share with third parties or otherwise announce and disseminate the results from the TALIS Starting Strong Survey prior the official release of the international report and data by the OECD.
- The release of international reports by the OECD may be staggered at different points in time, *e.g.* with respect to the two target populations. Standards on embargoed use of the data hence apply to each of these releases individually.

DATA ANALYSIS AND ESTIMATION

Standard 10.2 All data analysis (primary, by the OECD and secondary, by the national teams) shall apply generally agreed upon scientific practice in the field of education and respect the TALIS Starting Strong Survey design parameters.

- The international reporting can be considered guidance in this respect.

Standard 10.3 The Consortium provides with the data the design variables needed for estimation and analysis (*i.e.* estimation weights and replication weights), analysis training and software to the national study centres to ease the production of the national reports.

- The Consortium computes estimation and replication weights that accompany the national and the international data files. The resampling technique in use is Balanced Repeated Replication (BRR) with Fay's modification (factor 0.5).
- The Consortium provides the national study centres with the IEA IDB Analyzer to assist the production of the national reports. The IEA IDB Analyzer is a user interface for use with SPSS (IBM Corporation, 2014) that can be used to conduct basic statistical analysis, while accounting for the complex survey design.
- The Consortium provides training on the use of the IEA IDB Analyzer and the proper estimation methods as well as an analysis manual.

Standard 10.4 Because the probabilities of selection assigned to the various centres and staff members are different and because non-response patterns vary from centre to centre, centres and staff members do not have equal estimation weights; therefore, all estimates of centre and staff characteristics must be computed using the appropriate estimation weights through specialised software (*e.g.* the IEA IDB Analyzer) or statistical packages that support the estimation required by the TALIS Starting Strong Survey (*e.g.* SAS (SAS Institute Inc., 2013), WesVar (Westat, 2008), STATA (StataCorp LP, 2015)).

- The recommended software, IEA IDB Analyzer, accounts automatically for the TALIS Starting Strong Survey complex sampling when estimating population features and standard errors.
- Other software, such as SAS, WesVar and STATA, can be used as well, when the design and replicate weights are properly specified.

Standard 10.5 Comparisons of estimates and testing for the significance of any differences shall account for the appropriate sampling errors, as indicated in the analysis manual.

Standard 10.6 TALIS Starting Strong Survey data are collected to support aggregated reporting at the level of a Participant, sub-national entities or other major sub-groups as appropriate and supported by the sample design. In agreement with the confidentiality pledge to respondents, the TALIS Starting Strong Survey data are not intended to be used for reporting at the level of individual centre or individuals within centres.

Standard 10.7 The structure of the TALIS Starting Strong Survey instruments and the design of the survey do not support causal interpretations and inferences.

- Given that the TALIS Starting Strong Survey i) is a cross-sectional survey of staff members, ii) has no component of experimental design and iii) does not rely on a longitudinal sample, results must be interpreted as observation of co-existence of phenomena or changes over time rather than as observation of causalities.
- If a theoretical model is used that allows for causality, that model (hypotheses and limitations) must be specified clearly to the reader.

Standard 10.8 National study centres are invited to reproduce findings from the international report respecting their national context.

- Reproduction of the findings in the international report by national study centres is an additional verification step that ascertains the accuracy of the obtained results.
- Conversely, the results in the international report will serve the national study centres to verify their computations when preparing their national reports, accounting for the national context.
- When contradiction occurs between the estimate prepared by the OECD and the estimate computed by the national team, the NPMs must alert the OECD and the Consortium for a resolution prior to the release of the initial international reports.

PUBLICATION OF RESULTS

Standard 10.9 The results published in the international report will be subjected to quality control and verification procedures.

- The results in the international report are verified by a part of the TALIS Starting Strong Survey consortium (partner and/or unit) other than the part and/or unit that originally produced the results to ensure correct computation of population estimates and their standard errors.

- The verifier reports the results from the verification directly to the Consortium. When a discrepancy is detected, the Consortium computes the affected statistics once again and corrects the errors, if found.
- When contradiction occurs between the results reported in the international report and the results computed by the verifier, the Consortium must alert the OECD for a resolution before results in the international report are published.

QUALITY ASSURANCE AND CONTROL

The following list includes key features intended to ensure quality standards are met regarding data analysis and reporting:

- publication and release of analysis results, international reports and a public-use database
- the use of design variables and appropriate estimation weights for estimation and analysis
- the use of the IEA IDB Analyzer or other software handling the TALIS Starting Strong Survey sampling design for data analysis
- review of the international report for causal interpretations and inferences
- reproduction of data analysis in the international report

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