Trade statistics capacity building beyond borders

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Abstract. We report on five years of capacity building designed to improve the skills of producers and users of international trade statistics all over the world, with a particular focus on developing countries. This training programme is a joint activity between UNCTAD, UNSD and WTO, based on an innovative (Blended Learning) approach, combining e-learning and face-to-face workshops. It is adapted to local needs, uses the pool of experts working at international organisations, and ensures continuous review and enhancement of the applied methods and tools. The results reviewed in this paper confirm that the program has reached the target population. Furthermore, it has global coverage and is gender-balanced. During the five years since the programme has begun, participation in the courses has increased considerably; success rates have risen from 72% to 79% and satisfaction rates from 77% to 88%. Plans for the future include delivering training in additional languages, increasing interactivity, and adding new components addressing specific training needs.

Keywords: Capacity building, training, international trade statistics

1. Introduction

1.1. Background

International trade statistics play an important role in mapping global commerce and the role of individual countries in the world economy. Establishing reliable data collection systems that apply agreed international definitions, standards and compilation methods across all nations is key to maintaining high quality and internationally comparable statistics. Policy makers, trade negotiators, economists, and users at large, demand more comprehensive data coverage to address their various analytical needs. There is strong need, in particular, for highly accurate statistics that do not compromise on

detail or comparability but enjoy broad country coverage. To realise these demands, it is crucial that countries all over the world compile reliable trade statistics, based on harmonized concepts and definitions, as set out in the globally adopted manuals on international merchandise trade statistics (IMTS) [1] and statistics in trade in services (STIS) [2], and report those statistics to international organizations for the compilation of global datasets.

Entities of national statistical systems involved in the compilation of international trade data, in particular national statistical offices, central banks, ministries of trade and customs administrations, had expressed the need for technical assistance. On that basis, the United Nations Conference on Trade and Development (UNCTAD), the World Trade Organization (WTO) and the United Nations Statistics Division (UNSD) initiated discussions with partners from different international institutions for the development of a common approach in responding to these needs. In coordinating the various requests, a primary objective was to be able to cater

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for all in a sustainable manner, on an annual basis, with combined resources from the international partners.

A comprehensive training and capacity building programme for international trade statistics was then elaborated, in the framework of the UNCTAD TrainForTrade (TFT) programme [3], with financial support and technical expertise from the three partner entities. The programme began with the development of a first component related to STIS, presented in 2012 during the Inter-Agency Task Force on Statistics of International Trade in Services (TFITS) and implemented in 2016. Later on, in 2018, another course on IMTS was designed using the same methodological approach and with the same inter-institutional partnership as the STIS courses.

1.2. Distance learning as a tool for capacity development

It was decided that training in trade statistics would be supplied through distance learning, as this method offers greater flexibility in terms of communication and delivery of training. Furthermore, it can overcome barriers of geographical distance, thereby reaching trainees all over the world, and it can be flexibly adapted to their needs. Limited only by the availability of Internet access, distance learning allows participants to undertake training at home or at their workplace, to choose the time and place that best suit their individual needs and constraints, to exchange information and ideas with trainers and fellow trainees, independent of location, to benefit from continued support and to maintain contact with international trade specialist and other training institutions. The actual challenge in third generation distance learning is usually not the physical distance but rather the difficulty in delivering a sustained educational transaction at a remove from the community of learners.

Experience has shown that, in training adults, the learning curve is usually steeper in a group environment than when learning alone. Flexible and participatory distance learning enables trainees to take a more active role in their own learning than in traditional face-to-face classes. Especially, on-line learning supported by a facilitator has proven to yield better results and be more inclusive for the participant, especially in adult learning [4].

2. Course design

2.1. Main principles for the design of the courses

Regardless of the type of training tools or the tech-

nology employed, no magic formula exists to train people around the world. The UNCTAD TFT programme applies the Blended Learning method recommended for United Nations capacity building programmes in technical cooperation projects [5]. Blended Learning gives trainees and trainers a high degree of flexibility. Access to knowledge and information can take place at different points in time and different places of the world, using tailormade technical solutions. For the e-learning programme on international trade statistics, a specific Blended Learning approach has been developed jointly by the three organizations involved, UNSD, UNCTAD and WTO. It is characterized by the following main principles:

– An emphasis on facilitated – as a contrary to self-paced – training, where the facilitators and instructors are well-known subject matter experts in IMTS with work experience in international organizations or national agencies;
– Training based on content – as opposed to training based on specific instructors – meaning courses are designed so that instructors are inter-changeable without compromising the quality of the training outcome;
– Supplementing online training with face-to-face training, in the form of onsite workshops, which allow in-depth specific topics or emerging issues not covered by the materials to be addressed and which also facilitates interactive group discussions and group exercises with higher efficiency than online meetings allow.

In line with the TFT approach, the distance learning strategy is based on three pillars: a rigorous method, known as Train-X; hybrid delivery of training; and a tailor-made approach targeting local needs and conditions.

2.2. Overall method

The Train-X method that forms the basis for the design of e-learning courses in the TFT programme represents a systemic approach to adapting course design to countries' specific and evolving needs for technical assistance. It is organized in three stages and nine phases, as depicted in Fig. 1.

For the international trade statistics e-learning programme, in the first stage, training needs were explored and analyzed, based on a preliminary study, as well as detailed analyses of the target populations and their articulated needs. In the second stage, specific training solutions were developed and adopted to the needs and
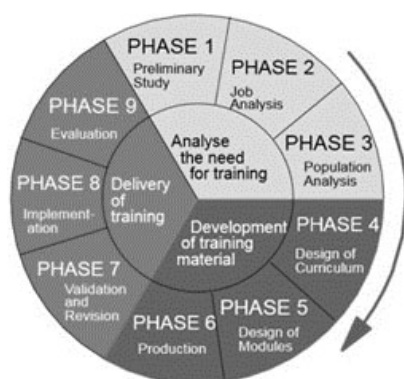
Fig. 1. The Train-X method.

local conditions of the target population. In the third stage, training was implemented and evaluated. The following paragraphs describe in more detail the analysis of training needs (stage 1) and the development of training materials (stage 2). In Section 3, delivery of the training (stage 3) is described.

2.3. Analyzing training needs

Analysis of training needs was based on the requests received from member states elaborating on their requirements related to statistical capacity development and support for related policy advise. Experience gathered by the technical assistance units of the three partner entities, as well as from various workshops organised in the past, helped to identify the relevant stakeholders.

The target population was identified (in phase 3) to consist of two levels: the primary target group comprising compilers and producers of data, statisticians of central banks, statistical officers, and national accounts experts; the secondary target group comprising data users from ministries of commerce, trade, economy, finance and tourism, as well as other industry players, such as, trade negotiators, economists, lawyers, etc. The needs of the primary target group centred on the acquirement of skills and knowledge that would allow them to compile high quality international trade statistics in accordance with global standards. The needs of the secondary target group consisted mainly in learning how to interpret and analyze international trade data, to understand quality issues and to get to know the data sources suited to their specific job requirements.

2.4. Developing training materials

A key element and main starting point for the development of training materials was the so-called Design-

a-Curriculum (DACUM) sessions. At these sessions, experts from the collaboration partners brainstormed on specific subjects relating to international trade statistics that might be included in the courses. This formed the basis for defining the training objectives, description of trainee outcomes, design of tests for each objective, and finally, the sequencing of training objectives and grouping them into training modules to form a coherent curriculum. In a second step of the DACUM sessions, the concrete content of each module was specified, as were the terms of references for the selection of an international consultant who would be contracted to draft and validate the training package.

The design of the training materials was guided by the rationale that training should be as independent as possible from individual instructors. This implies a particularly important role for the training material, regarding its quality and its usability by different trainers. For that reason, all materials, comprising a handbook for participants, guidebooks for instructors, technical tutorials, multimedia aids, digital tools, tests, quizzes, exercises, case studies, and the online platform material, were prepared and validated by international trade statistics experts before use. The material was designed so that different instructors, who are inter-changeable from one course to another, can use them without disturbing the course itself. The guidebooks for instructors fulfil an especially important function in this regard, as they provide the trainers with the same background helping them to deliver the same pedagogical content. These materials set out all the elements needed by a trainer to deliver high quality and homogeneous training.

From the launch of the programme, the course language was English. Since 2019, the SITS course, and since 2020, the IMTS course have also been offered in French, to address the expressed needs of francophone countries. Producing a course in different languages, using the TFT methodology, is like creating as many courses as languages. But the effort seems justified, as courses can be tailored better to the specificities of different regions and cultures. For the learner, following a course in their mother tongue or working language is more efficient than in a foreign language.

In line with the established TFT method, the e-learning, as core component of the course in which a solid foundational knowledge of trade statistics compilation is formed, is followed by a face-to-face workshop for the further development and refinement of practical skills and more intensive exchange of experiences than would be technically possible online.

2.5. Applying the learning management system

An important aspect of the course design is the infrastructure used for sharing the training materials with trainees and for the interaction between trainers and course participants. The TFT programme uses a Free and Open-Source Software (FOSS) model as promoted by the United Nations as part of their efforts to make technology, software, and intellectual property available to everyone, including developing countries. This is an important strategic choice that allows more flexibility and control over the data and resources used to maintain digital tools and platforms. With this approach, the platforms can be maintained and updated by the core TFT team. The choice of FOSS has also been guided by the aim to safeguard the programme and avoid dependency on private service providers and associated costs hikes. Rising costs overtime would jeopardize the digital component, especially in the context of unpredictable donor funding over the long term.

The TFT Learning Management System (LMS) is based on Moodle3, the most popular LMS in the world. It is open source and allows for a high degree of flexibility. The TFT domain name is: https://learn.unctad.org. The pedagogical multimedia material is converted into video elements with limited interaction, based on the HTML5 and H5P standards. A pure video version, in MPEG-4 format, is also available for areas in which restrictions on video platforms are in place.

The Internet supports interactions between course participants themselves and with the trainers, by means of a chat, a forum, tests, quizzes, evaluation questionnaires, video-links and case studies. Courses can be broadcast world-wide. However, regional and local examples are also needed to facilitate trainee comprehension.

The selection of the Moodle platform as LMS was based on the following criteria:

- Multilingual environment with options to easily add more languages (including local or ethnic languages);
- Standard elements, such as, multiple-choice questionnaires, chat, forum, email alerts;
- Low bandwidth required for use;
- User friendliness;
- Easy administration of the platform;
- Open source (to enable adding new features and replicating the platform locally);
- Independence from commercial providers (and protection from escalating costs);
- Easy management of participants; and

- Sharable Content Object Reference Model (SCORM) 4 standard compatibility.

The TFT LMS is also coupled with a tailormade platform [3] to operate the registration of events and participants, facilitating the collection and presentation of dynamic statistics regarding the running and management of the programme and courses. This registration platform uses WordPress, a free and open-source content management system written in PHP and paired with a MySQL database. The two platforms are interconnected allowing direct cross-data exchange. For example, results-based management indicators have been embedded in both platforms to measure the level of satisfaction and the performance of participants.

3. Running the courses

Each year, at least one STIS and one IMTS course are run. The IMTS course usually takes place over March and April, the STIS course between October and November. The fixed calendar is important, as it facilitates a smooth organization of the course from the supply perspective and gives participants advance warning, helping them to effectively align their development with other activities. Additionally, in some years, the STIS course was offered to specific target groups in the context of other dedicated technical assistance projects. For example, the pilot STIS course was offered to least developed countries (LDCs) in 2016; in 2017, a special course tailored to Arab countries was organized; and in 2019, a dedicated e-learning component was delivered to professionals from the West African Economic and Monetary Union [6].

The activities involved in each course are described in brief (see Fig. 2). They are undertaken by actors with specific roles and specific tasks and responsibilities (summarized in Table 1). Staff typically involved in a course comprises: one administrator; one platform expert; between one and three subject-matter observers; and between five and ten facilitators, depending on the number of enrolled participants. As a rule of thumb, one facilitator is required for every hundred participants, to ensure timely and substantive responses to the participants' inquiries and efficient discussions in the fora.

3.1. Course preparation

In the preparation phase of each course, the concept notes and agendas for the e-learning and the onsite

Table 1
Roles and responsibilities

| Role	Tasks/responsibilities
Administrator	– Prepare concept note and agenda – Designate a facilitator – Prepare and distribute invitations – Filter applications – Send a weekly summary
Platform expert	– Set up the e-learning environment – Respond to technical inquiries – Resolve any technical issues
Facilitator	– Promote discussions in the forum – Respond to subject-matter inquiries – Facilitate interactive discussion – Contribute to the onsite workshop (or online webinar)
Participant	– Follow the curriculum, including reviewing materials for each module and taking a weekly quiz – Participate in a discussion forum – Pass the final exam
Subject-matter observer	– Contribute to the discussion forum – Contribute to the onsite workshop (or online webinar)
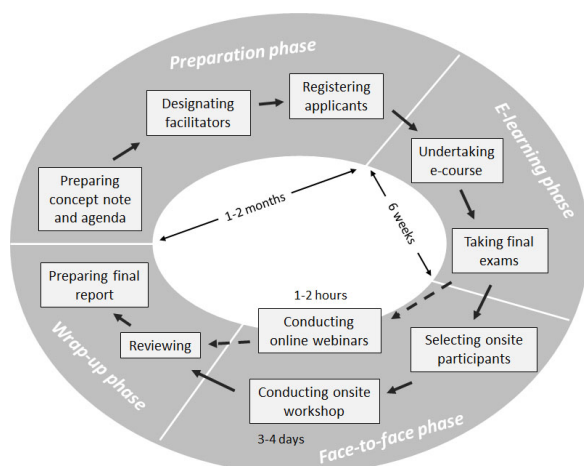
Fig. 2. Overview of activities for running a course.

workshop are prepared. As the e-learning content does not substantially change from one year to the next, the concept note and the agenda for the e-learning do not need to be updated frequently. However, the concept note and the agenda for the workshop vary from one training cycle to the other, depending on the needs of the region in which the workshop is being held and depending on the particular needs or idiosyncrasies of the participating countries.

Another important preparatory activity is the choice of the facilitators to assist participants in understanding the lectures and the course materials, promote interac-

tion among the participants and answer specific questions – often where participants are attempting to apply their newly acquired knowledge in the context of their own country experiences. The role of the facilitator is crucial for effective learning and sharing of practical expertise. The use of subject matter experts as facilitators, who can share their professional experience in the forum discussion and use their specialized knowledge in responding to inquiries, has proven to be a particular strength of the training programme. In this regard, the programme has a comparative advantage, as UNCTAD, UNSD and WTO have direct access to qualified professionals in the domain of international trade statistics. Despite the availability of inhouse subject matter experts, there is also a need to hire short-term experts on occasion – especially as course numbers have grown.

One or two months prior to the start of a course, it is announced through tailored invitations and calls for nominations from official channels, mailing lists on social media (Facebook, LinkedIn, Twitter), as well as by contacting former participants. Interested participants are invited to register on the dedicated TFT platform. During registration, detailed information is collected on the applicants' background, including a short biography. Based on that information, a first screening is carried out ensuring that the target population is well represented and that the course will address the relevant compilers and policymakers.

3.2. E-learning phase

The e-learning covers six modules that span six weeks, with one module released each week. At the beginning of the week, an email reminding participants of the activities recommended for the next module is issued. Every week, participants are expected to review the materials provided, watch videos, review background documents, and take a quiz to complete the module. They can also join the forum to ask questions and raise or participate in discussions on specific topics. The forum is also a place where participants share their experiences. The facilitator has the crucial task to facilitate and guide discussions and to reply to student inquiries. At the end of the course, participants take a final exam and, if successful, are awarded a certificate confirming their successful completion.

3.3. Face-to-face phase

Around 30 participants who successfully completed the online course are invited to a three- to five-days

onsite workshop sometimes organized in collaboration with a country or a regional organization. For STIS courses, these onsite workshops mostly take place in Geneva. Candidates are selected by the WTO from national statistics offices, central banks and relevant ministries endorsed by WTO Members and Observers. This approach ensures targeted training of government officials from developing economies, who will use their enhanced data collection and compilation skills to assist policymakers and negotiators. For IMTS courses, the invited candidates are chosen based on their results in the weekly quizzes and the final exam, and on their level of active participation in the forum. In exceptional cases, the workshop is also open to senior staff of host countries with a proven knowledge of trade statistics.

Making participation at onsite workshops conditional on participants' online performance encourages high commitment by participants, improves the quality of the discussions, and appears to keep the dropout rate low. Besides the learners, other participants include trade statistics compilers of the host country, experts from national agencies or international organizations, as well as the instructors and facilitators of the online course. Travel, accommodation and daily subsistence allowances are covered by the WTO and UN programmes. Participation in courses organized in Geneva is also open to officials from developed countries on a self-funding basis.

The workshop agenda covers the treatment of specific compilation topics of immediate relevance in the region or of particular interest for the course participants, according to their feedback, collected in surveys. The IMTS workshops also include a fixed component devoted to the application of basic concepts and definitions with a special focus on borderline cases. During the workshop, national and international experts deliver presentations on specific topics and participants of the online course present national case studies, both complemented by question-and-answer sessions. Participants also jointly solve hands-on exercises and engage in group discussions on specific compilation challenges. While the workshop represents the costliest part of the course, it enables, being face-to-face, more interactivity, transmission of specialized knowledge, sharing of experience, and professional networking opportunities than the e-learning part of the course[1].

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[1] A documentation of all onsite workshops organized within the programme, including the concept notes, agendas presentation slides and other material, is available on the UNSD website [7].

In 2020 and 2021, in the face of the COVID-19 pandemic, organizing onsite workshops was no longer feasible. They were therefore replaced by online webinars, which lasted between two and three hours, hosted on Zoom or Webex and targeted on a particular time zone. These webinars had the advantage that they could include hundreds of users from different backgrounds. However, due to their time limitation, they did not allow for the same in-depth discussions as the onsite workshops. Furthermore, monitoring whether participants had effectively followed the presentations and discussions was hardly possible. Noticeably fewer participants raised questions in the webinars compared with onsite workshops. Unlike onsite workshops, where participants have time to get to know each other, webinars lack any direct personal contact, impacting on the dynamic during round table discussions. We therefore consider webinars as only a partial substitute, and one which will never fully replace onsite workshops.

3.4. Wrap-up and review

Continuous review is a particularly important element of the TFT approach. Different evaluation activities are carried out during and after training, to ensure that the material was well suited to the needs of the participants and to verify the quality of the implementation and effective transmission of skills and knowledge. In line with the TFT approach, the first year of running the STIS and IMTS course was considered as a pilot phase in which the developed training material was tested on a small group of learners, difficulties identified and the relevance and performance of the training for the target population was validated. Reviews have been an integral part of each subsequent training cycle to continually enhance the training over time and to identify and respond to any quality issue or changes in the needs of the target population.

Core inputs to the evaluation are the results of the quizzes and tests, the feedback questionnaires completed by participants after each module, and the participants' profiles. The results are analysed module by module, to observe any discrepancy with reference to the minimum performance standard of 50% and to the benchmark standard set at 70%, based on the global average throughout the TFT programme. If a participant's individual performance falls below that minimum, their profile and background is examined to verify that the participant was correctly identified as belonging to the target population. If the class average is below the benchmark standard in a specific module, we

Table 2
Participation in the courses

Year	Index	Domain	Language	E-learning		Onsite workshop	
				Number of participants	Percent female	Number of participants	Percent female
2016	1	STIS	English	232	52.6	–	–
	2	STIS	English	27	33.3	27	37.0
2017	3	STIS	English	86	32.6	28	42.9
	4	STIS	English	38	36.8	38	36.8
2018	5	IMTS	English	115	60.0	22	86.4
	6	STIS	English	44	36.4	14	42.9
2019	7	IMTS	English	766	53.4	90	50.0
	8	STIS	English	703	62.9	28	53.6
	9	STIS	French	80	20.0	–	–
2020	10	IMTS	English	948	53.2	–	–
	11	IMTS	French	299	32.4	–	–
	12	STIS	English	596	47.0	169[a]	49.1[a]
	13	STIS	French	173	26.6	49[a]	20.4[a]
2021[b]	14	IMTS	English	915	50.3	634[a]	54.9[a]
	15	IMTS	French	140	28.6	67[a]	23.9[a]
Total				*5 162*	*49.4*	*1 166*	*49.6*

[a]Workshop organized as webinar online. [b]Figures are not final. STIS courses in French and English in 2021 are in preparation.

investigate the possibility that this is due to the content of the material or the design of the tests. The feedback questionnaires are also examined for evidence of any concerns expressed by participants regarding specific topics or procedural aspects.

The outcomes of that review are summarized in a detailed report prepared at the end of each course, alongside a documentation of all activities undertaken during the training, the pedagogical material used, the way the course was delivered, the size and composition of the group participants, as well as the participants' main comments and recommendations. The results of the review are used to improve the future delivery of training.

4. Outcomes

4.1. Coverage

Based on the registration information collected through the TFT platform, since the first course in 2016, the programme has trained a total of 5,162 participants. Of these, 2,552 (49.4%) were female. A total number of 1,166 participants, comprising 578 females and 588 males, also joined an onsite workshop or webinar. Altogether, 26 training events have been carried out (see Table 2).

As Fig. 3 shows, the number of participants increased over time, from 259 in 2016 to 2,016 in 2020. The highest rise was observed in 2019 when 1,549 students participated, compared to less than 300 in the two years
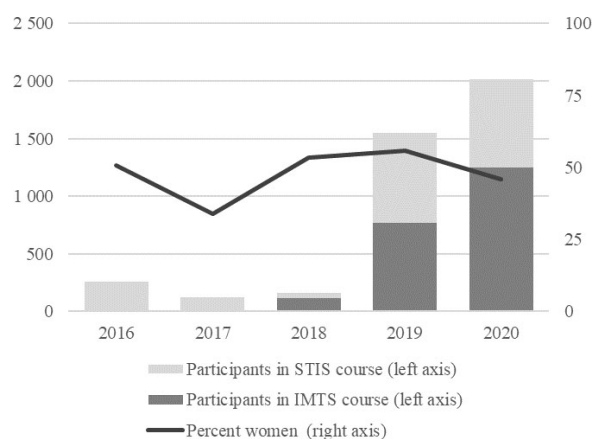

Fig. 3. Number of registered participants and percentage of women.

before. The year 2019 was the first in which registration limits for the e-learning element of the SITS course, initially set equal to the number of participants attending the onsite workshop, were no longer applied. Thanks to advancements in the TFT platform, a higher number of participants than previously could be catered for in both the STIS and IMTS courses, thanks also in no small measure to the extensive contact network of UNSD. Also, the IMTS course left its pilot phase and entered its operational phase in 2019.

Registrations have been received from around 200 different countries (see Fig. 4). Most came from Asia (40%), Africa (25%), and the Americas (22%). The share of registrations by women was in Africa (32%) lower than in the Americas (57%), Asia (55%), Europe

Note: Registrations in e-learning, workshop, and webinar are shown, independently of the person.

Fig. 4. Number of registrations by country of residence.
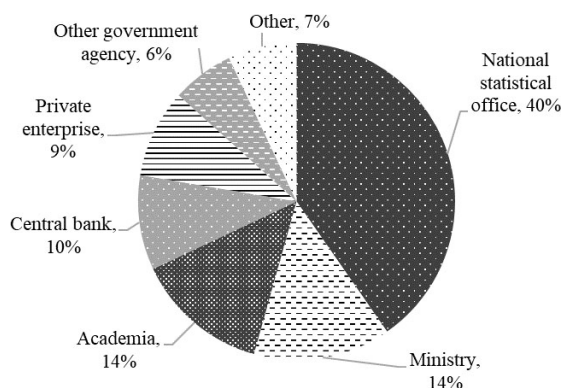

Fig. 5. Participation in the STIS course 2020, by work domain.

(49%) and Oceania (64%). By far the highest number of registrations came from China (928) and Indonesia (466). As Fig. 4 shows, the programme has succeeded in reaching out to many developing countries, including landlocked developing countries, LDCs, low- and middle-income countries, as well as small island developing States, where statistical systems are usually weakest and the needs for assistance accordingly high.

Course participants include professionals with different status and from various work domains. Detailed statistics for the whole program are difficult to retrieve. As an example, Fig. 5 shows the breakdown by area of work in the latest STIS course. More than two thirds of participants worked in national agencies usually involved in the production of international trade statistics. Out of these, professionals from national statistical offices accounted for the largest share; ministries and central banks were represented less. Participants from

academia accounted for 14%, and participants from the private sector only 9%.

While the figures show that developing countries have been successfully targeted by the training, it is noteworthy that since 2019, a growing share of participants from developed countries have been registered. Ten percent of registrations in 2019 and 17% of registration in 2020 were from participants living in developed countries, after shares of 1% or less between 2016 and 2018. This indicates that the courses, initially designed with the main goal to bridge a knowledge gap between developed and developing countries in the compilation of international trade statistics, are increasingly used for knowledge formation also in countries with advanced statistical systems. As online training is principally nonrival, this shift in the target group does not compromise the development of skills in developing countries. On the contrary, participants from countries with weaker statistical systems benefit from knowledge and experiences shared by their peers from countries with more advanced systems.

4.2. Success and satisfaction

Two important metrics, used to assess the performance of the TFT programme, are how many course participants pass the course, and how useful is the training perceived to be? To obtain evidence for these questions, in each course, the success rate and the satisfaction rate, broken down by the different modules of the course, are automatically calculated by the LMS. The success rate is compiled from the scores achieved by participants in the quizzes and tests, where success is
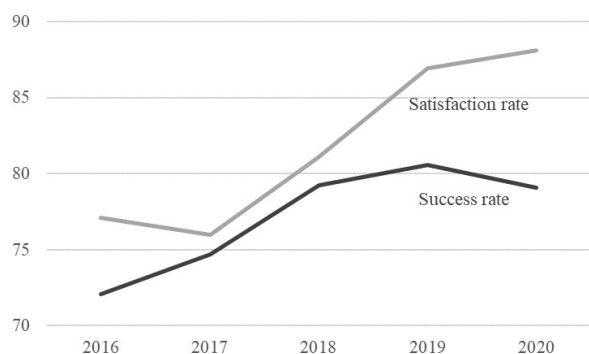
Fig. 6. Success and satisfaction rates (%).

measured as passing them with a minimum score of 50%. The satisfaction rate is measured based on the feedback questionnaire filled by participants during or after the events.

As Fig. 6 shows, in 2020, the average success rate was 79% and the average satisfaction rate 88%. Both results-based management indicators have risen over the last five years. The success rate, initially at 72% showed a steep increase from 2016 to 2018 and has remained relatively unchanged since then. The satisfaction rate, initially around 76% to 77% recorded its strongest increase from 2017 to 2019. This most likely reflects the improvements in course organization and materials implemented over time in response to the continuous review (see above).

4.3. Feedback from participants

Feedback collected from participants in the open questions of the questionnaire about topic selection, training materials and methods, facilitators and interaction with other participants, was positive overall. The materials and arrangements of the course were praised, and many participants noted that the combination of videos, presentations, manual, quizzes and forum worked smoothly. In particular, the global coverage of the course was perceived to be a positive element that enabled a wide exchange of ideas and experiences with an international audience. Many participants pointed out that the acquired knowledge and skills were highly relevant for their jobs, and that the training has prepared them better with regard to solving specific compilation problems or to analyzing trade data. Some selected comments are presented in Box 1.

Suggestions for improvement included proposals to make the online lectures more interactive and to allow for more time to complete the course. We also found that participants who analyse international trade data

> "*I often use statistics, but I never went deeper into the process. Nowadays I can look at the numbers in a more constructive way. I feel that the TrainForTrade programme concretely increased my competence and capability to analyse markets through a better reading of trade flows.*"
> "*It provides a comprehensive overview of everything that is involved in the collection and dissemination of trade data. I have been working on IMTS for 5 years now, mostly self-taught, and the course has enabled me to gain a better understanding of many aspects that I had not previously found explanations for.*"
> "*It is really well organised from the presentation, to review materials, and to the quiz, to the forum, and the grade of each quiz. It shows me an example to conduct the training in the future on tele-base given the current situation of Covid.*"
> "*The training is providing an excellent platform for us to understand more about IMTS and to compare the practice between the developing nations and developed nations. The participation of so many countries also has the function of an important information exchange.*"
> "*It's been really cool to see people from across the world participate in the course and on the forums and talk about their trade statistics.*"

Box 1. Selected feedback from the feedback questionnaire.

as part of their jobs often faced difficulties with the more conceptual issues that represent a main component of the course content, both in the lectures and the practical exercises. This, together with the length of the course, sometimes decreased their motivation and, in a few cases, led them drop out. Future improvements or modifications could therefore consist of a separate, shorter, practical course focusing on the use, rather than the production, of international trade statistics. Such a module would focus specifically on the development of skills for the interpretation and proper analysis of data, including accessing relevant databases and downloading the needed information.

5. Conclusions

5.1. Taking stock after five years of training

The outcomes of the training programme above show that over the past five years an increasing number of professionals of the target group have been reached. The coverage is global and gender-balanced. The success rate has stabilized at around 80% for the last three years, indicating an effective transfer of knowledge. This is remarkable, considering the time constraints which statistics compilers and analysts, making up the majority of the target population, usually face in their jobs. The steady increase in reported satisfaction rates over the last four years suggests that the efforts to enhance the training after each cycle, based on the evaluation of the

previous cycle, has paid dividends. Due to the chosen e-learning format, the success of the training, both in terms of coverage and transfer of knowledge, has hardly been impacted by the COVID-19 pandemic. The only meaningful concession or compromise was the substitution of webinars for traditional onsite workshops. This reduced the depth of the discussions, the sharing of practical experience and the development of personal ties between peers.

All in all, the training programme is assessed as an example of effective technical assistance targeted at strengthening the capacities of national statistical systems in the important domain of official statistics, international trade. It also presents a good example of successful inter-agency collaboration between international organisations: UNCTAD, UNSD, and WTO. The financial support from WTO regular funds and specific projects under the United Nations Development Account, the scientific exchange within the Blended Learning initiative, the support from the TFITS and the collaboration with regional organisations have been of paramount importance for the sustained success of the training.

In addition to that support, certain resources specific to the three organisations have proven helpful in the successful design and implementation of the e-learning programme. These consist, in part, in the direct access to a pool of subject matter experts and practitioners in the domain of international trade statistics facilitated by the fact that our organisations have been directly involved in the development of international compilation and training guidelines. The global outreach of the communication infrastructure and institutional linkages of the three organisations, past experience in technical assistance in the area of statistics, and the availability of record-proven e-learning formats developed in the TFT programme have been other important resources on which the programme has built. Collaboration has enabled the three organizations to realize synergies and coherence, thereby using resources more efficiently than would have been possible had development training been conducted by each agency individually.

5.2. Outlook

Future plans involve the expansion of the TFT Trade Statistics programme to deliver training in additional languages and also to cover new components, based on requests by member states, with donor support. Currently, both the STIS and IMTS components are delivered in English and French. As they are operated

separately, they require their own resources in terms of support, expertise and monitoring as well as web pages. Developing new languages therefore creates a need for further resources, in particular for the digital part, for which development is especially long and independent across languages. However, training in different languages gives the opportunity to tailor course materials more closely with the circumstances of the target regions and to reduce language barriers in the transmission of knowledge.

Furthermore, with regard to training methods, the three organisations are examining ways to introduce more interactivity into the online lectures, for example by adding real-time question-and-answer sessions, as proposed by some course participants in their feedback questionnaires. While this would be very valuable, it does introduce additional costs into the design of the training instrument that must be carefully weighed up. As noted above, the possibility of supplementing the current e-learning, which primarily targets trade statistics compilers, with separate short online modules for training in data analysis is being carefully considered. Doing so would address the needs of users of international trade statistics.

In the light of these plans, it will be important in the mid-term to look for larger donor support in order to pursue this common endeavor which, in our view, represents a pragmatic and concrete example of the use of synergies amongst international institutions and of their specific comparative advantages in the provision of training in international trade statistics all over the world.

Acknowledgments

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