

Open Educational Resources in Technical and Vocational Education and Training

An overview of the state of affairs and the extent to which the potential of Open Educational Resources (OER) is harnessed in Technical and Vocational Education and Training (TVET)

Sub report Survey

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1 Introduction

In May 2015, the Qingdao declaration advocated for the use of technology in education (including vocational education) and detailed expectations with respect to OER: "Open Educational Resources (OERs) provide education stakeholders with opportunities to improve the quality of, and expand access to, textbooks and other forms of learning content, to catalyze the innovative use of content, and to foster knowledge creation. We commit to developing sector-wide strategies and capacity building programmes to fully realize the potential of OERs to expand access to lifelong learning opportunities and achieve quality education."

Following up on this, UNESCO has commissioned a study with the aim to understand better the specific role of Open Educational Resources (OER) and Open Education in TVET and to provide Member States and UNESCO, in particular UNEVOC, with recommendations to support the creation and the use of OER in TVET.

The data collection in this study project consists of three strands:

- Strand 1: Literature review
- Strand 2: Survey
- Strand 3: Interviews with TVET experts

After the information and data collection, a draft report will be delivered, which after discussion will be finalised.

This report entails the information collected in strand 2, the survey.

2 Methodology

The aim of the survey is to collect data on evidence for the practices of creation and use of OER in TVET and the support stakeholders are providing.

Input for the survey questions are issues around use of and support for OER that were not addressed by the literature we found, and gathering additional data to be able to answer the questions UNESCO-UNEVOC has formulated for this study.

The questions are divided into 3 chapters:

1. General. Information about institution, country, position and expertise of OER and TVET (7 questions)
2. Use. Practices about creation, use and impact of OER in TVET (9 questions)
3. Support. Practices about supporting policies and activities for creation and use of OER in TVET (10 questions)

Questions in the chapters Use and Support are both open-ended and closed questions. The latter category have used 4-point and 5-point Likert scales. Some of the closed questions had an “Other” option to provide input not present in the answer options.

All questions in the General chapter were mandatory to fill in. All other questions were non-mandatory.

When relevant, respondents could provide answers from a national viewpoint and from an institutional viewpoint. Respondents were able to decide for themselves which of the viewpoints (one or both) they were having sufficient knowledge about for their responses. This viewpoint could be determined per question. For example, a respondent was able to answer a question from a national viewpoint and answer the next question from both viewpoints.

The survey was published online on the Limesurvey platform on July, 3, 2017 (<https://tvetoer.limequery.com/683713?lang=en>).

Respondents were targeted via a message in the UNESCO-UNEVOC TVET forum (<http://www.unevoc.unesco.org/go.php?q=e-Forum+-+Message+Board&skin=efor&lang=en&action=threadlist&thread=3744>) on July, 3, 2017. Reminders were posted in this forum on July, 18 and July, 31. Additionally, several twitter messages were sent out, and stakeholders in the UNESCO-UNEVOC network were emailed individually to get their attention on the survey. Some of the stakeholders reported spreading the call for respondents among their network. This means that it is not possible to determine how many people were initially approached to participate. Therefore, it is not possible to determine the response ratio. The survey closed on August, 7, 2017, midnight.

3 Results

The remainder of this report consists of the results. These results will be described per chapter. For the chapters Use and Support, most questions will have a graphical display of the results, with a short summary. The responses mentioned under “Other” in closed questions are presented without editing the response. For referral purposes, some questions have a unique code, put in () in the header.

3.1 General

3.1.1 Number of responses

Table 1 lists the **number** and **quality** of the responses

Date	August 8, 2017
Total # responses	349
# responses unusable because of not providing information in the Use and/or Support chapters	92
# usable responses	257 (73,6% of total # responses)
Of which filled in the survey completely	182 (70,8% of # usable responses)

Table 1 Responses

3.1.2 OER-Expert vs knowledge of CC-BY logo (G5, G6)

To determine the expertise of the respondents, 2 questions were asked:

1. Do you consider yourself an expert in open educational resources (OER)?
2. What do you know about this logo? 

Question 2 was a check on the validity of the self-reported OER expertise.

The results (N=257):

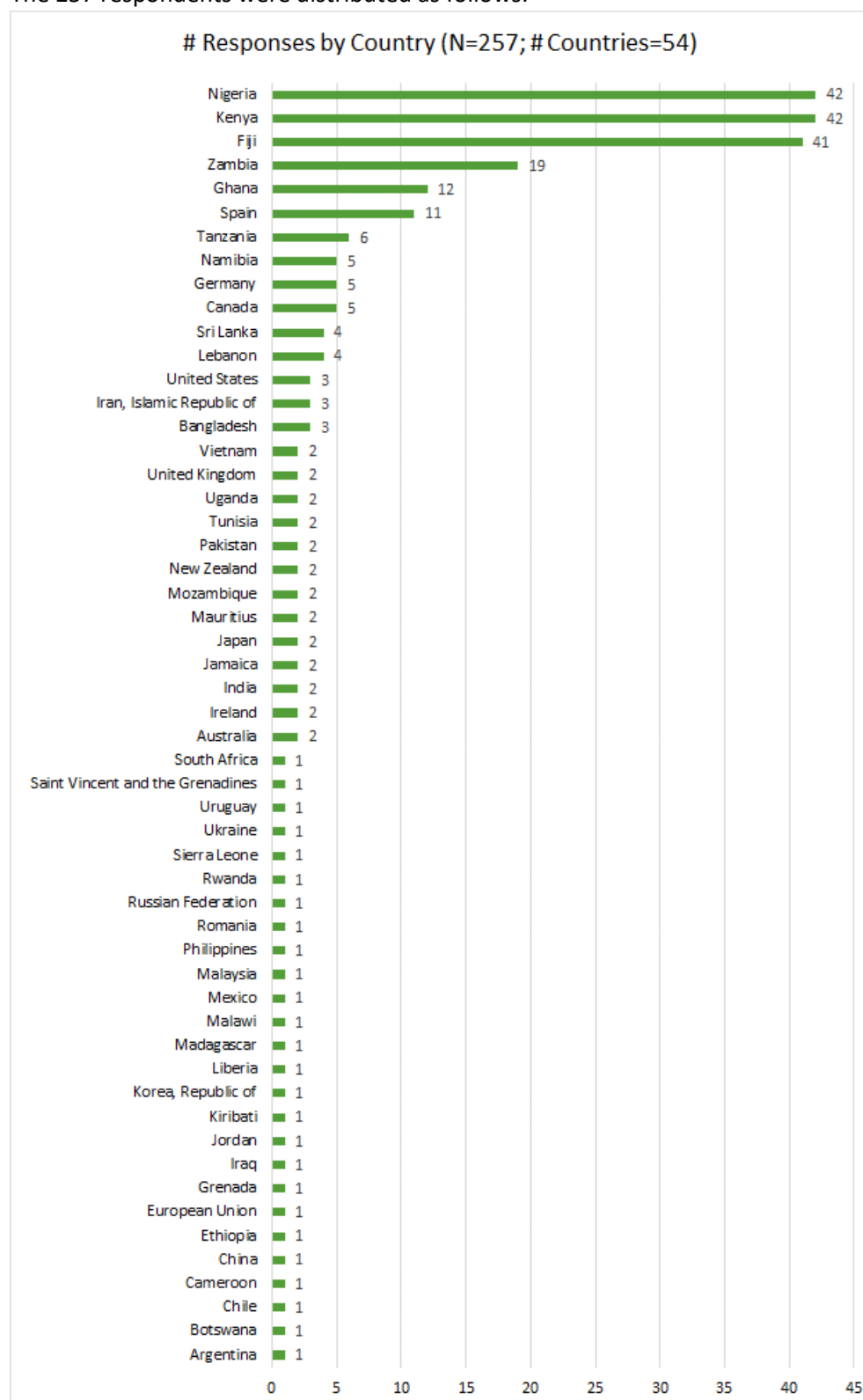
OER expert→ CC_Logo↓	No	Somewhat	Yes	Total
I've never seen it	9,3%	10,5%	4,7%	24,5%
I've seen it but I don't know what it means	10,5%	18,7%	5,4%	34,6%
I've seen it and I know what it means	4,7%	23,3%	12,8%	40,9%
Total	24,5%	52,5%	23,0%	100,0%

The assumption behind question 2 was that anyone with a little or much expertise on OER is familiar with the CC-BY logo, as many OER are published with this or a similar license of Creative Commons. The OER expertise of respondents whose response are in the red or orange marked cells (39%) can therefore be questioned. For respondents who are teacher or trainer, this mismatch between OER expertise and knowledge about the CC-BY logo even is 53%. A possible explanation is that these respondents have a different view on OER. Other research (e.g. Schuwer and Janssen, 2017) have indicated that e.g. learning materials which are free to access (but without the explicit permissions to adapt or reuse them, as are the characteristics of OER) are considered OER by many individuals. A

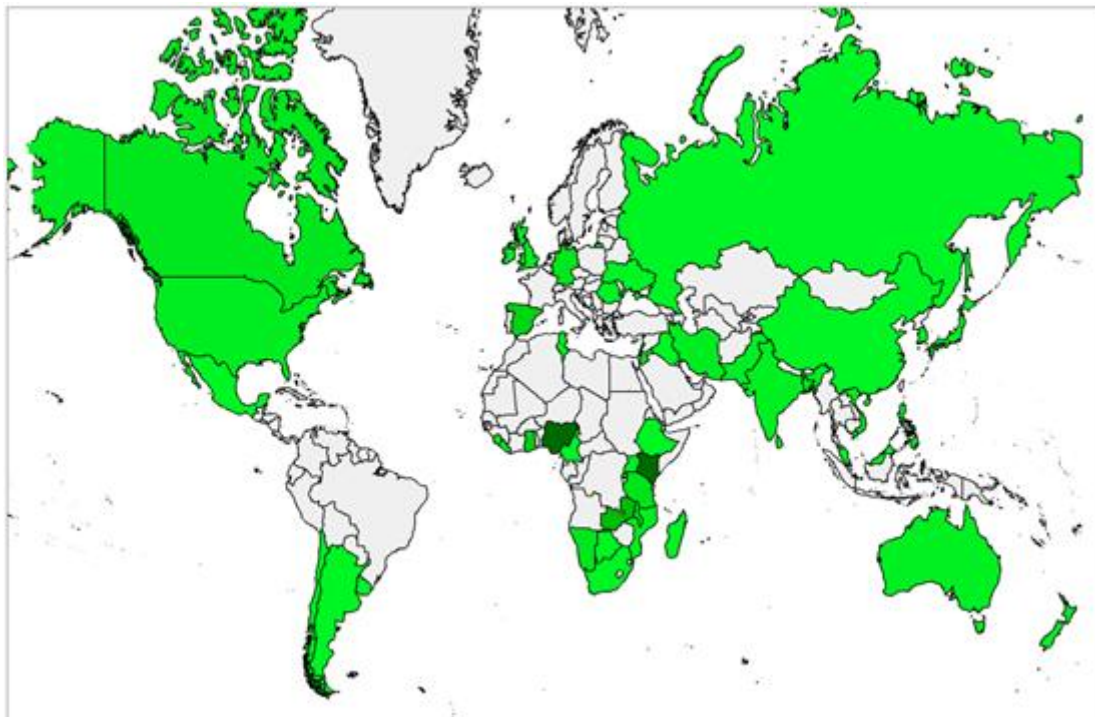
consequence is that the remaining results of this survey should be interpreted bearing in mind that OER could probably have been interpreted with a broader meaning than as strictly defined (e.g. in (UNESCO, 2012)).

3.1.3 Distribution respondents among countries (G3)

The 257 respondents were distributed as follows:



An alternative view makes clear the spread of respondents around the world



(Grey = no response; the more responses, the darker the green color)

From the table, it can be derived that:

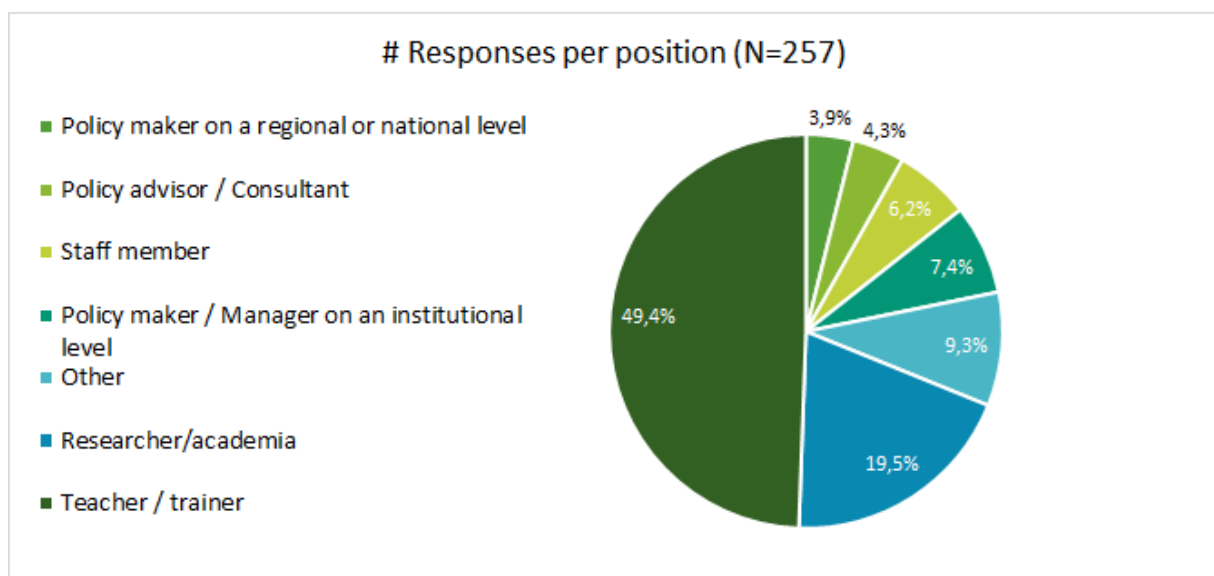
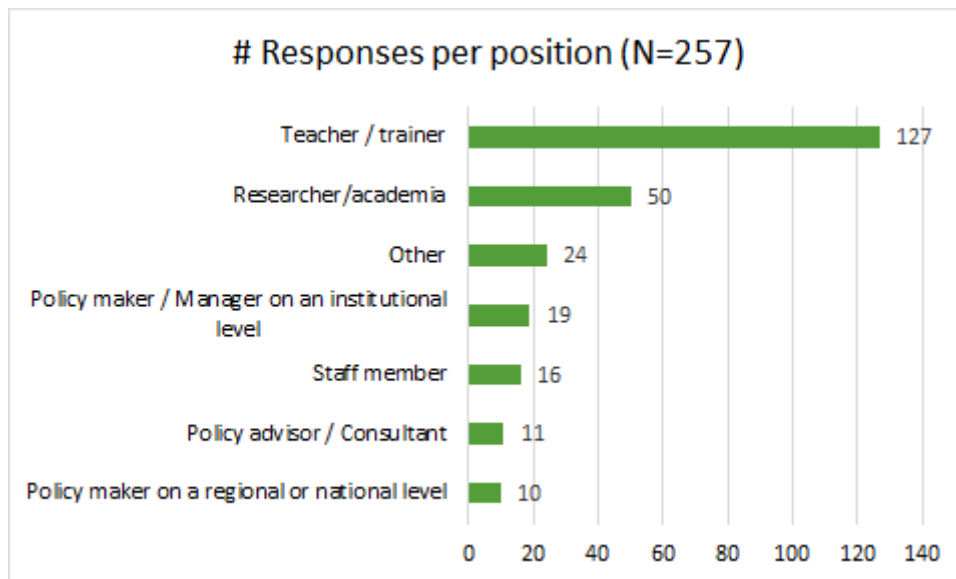
- 48.7% of the responses originate from Fiji, Kenya and Nigeria
- Distribution among the continents:

Continent	#	%
Africa	145	56,4%
Asia	28	10,9%
Europe	22	8,6%
North America	13	5,1%
Oceania	46	17,9%
South America	3	1,2%

Conclusion: responses are not evenly spread around the world. Generalisation of results of this survey, especially to regions that have no or a low number of responses (South America, North Arica, the Nordic in Europe), should therefore be done with care. In the study, we have added alternative sources (literature review and interviews with experts) to get a more representative picture.

3.1.4 Distribution among position (G4)

The 257 respondents were distributed as follows:



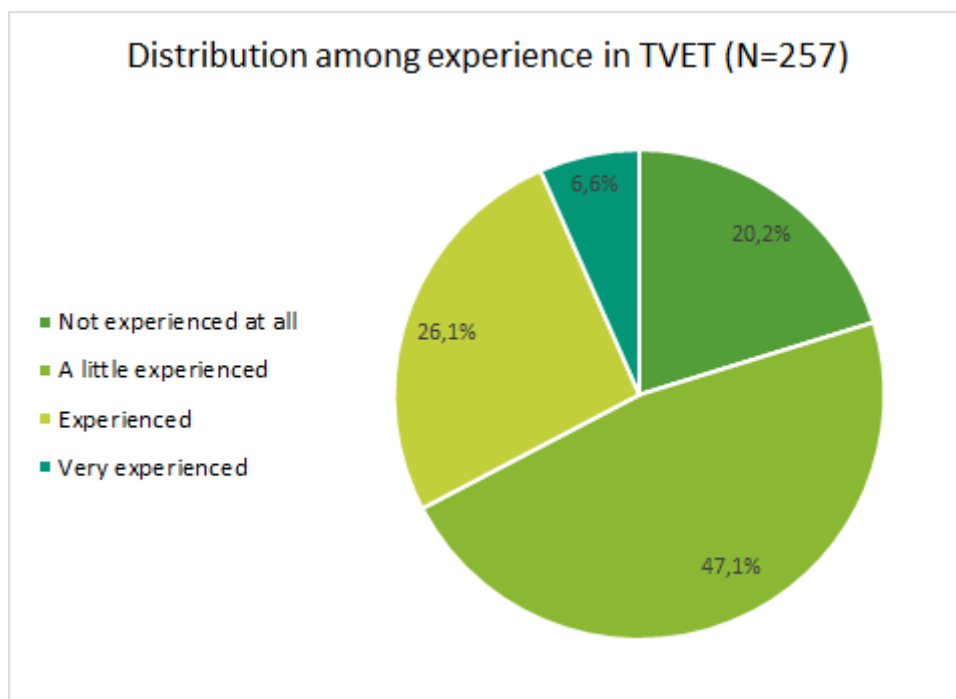
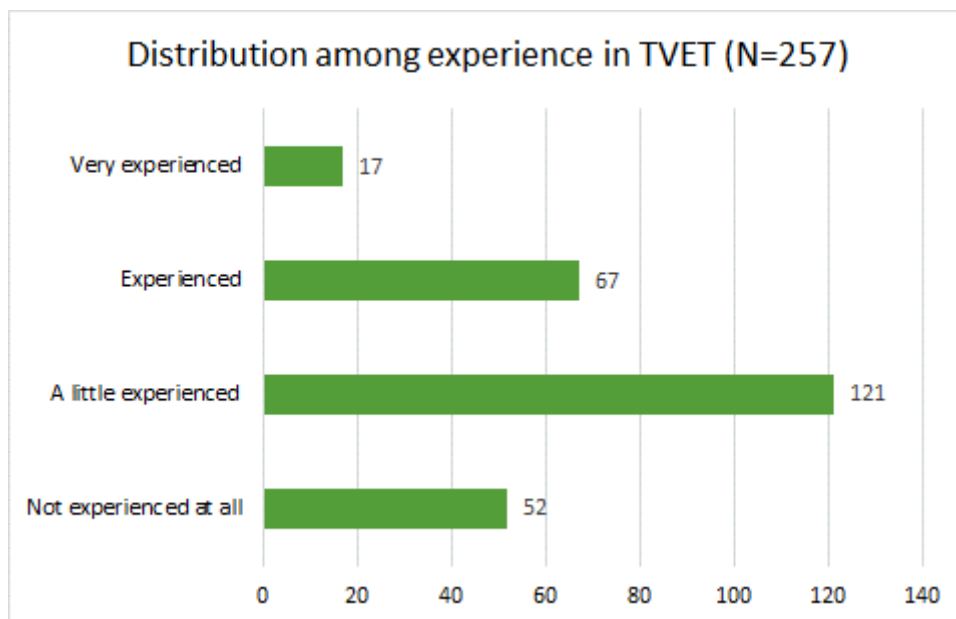
Under “other” the following positions were mentioned: Consultant OBE trainer of trainers, International Organization, Owner, I am both Researcher/academia and Policy maker/Manager from an institutional viewpoint, performance contracting environmental sustainability, Head of Campus (2x), coordinator, Bamboo Technologist, Lecturer, administrator, Teacher/trainer, Training engineer, Research Associate, CEO, Manager - International projects, international manager, Student, Director of international department, Trainer + Manager + Researcher, Instructional Designer, Trainer, researcher, faculty manager, policy advisor/consultant.

Almost 50% of respondents are teacher / trainer. Around 11% of respondents are policy makers.

3.1.5 Distribution by experience with OER in TVET (G7)

Question: What is your experience in using OER for TVET?

The 257 respondents were distributed as follows:



Almost 80% of respondents are more or less experienced with OER in TVET.

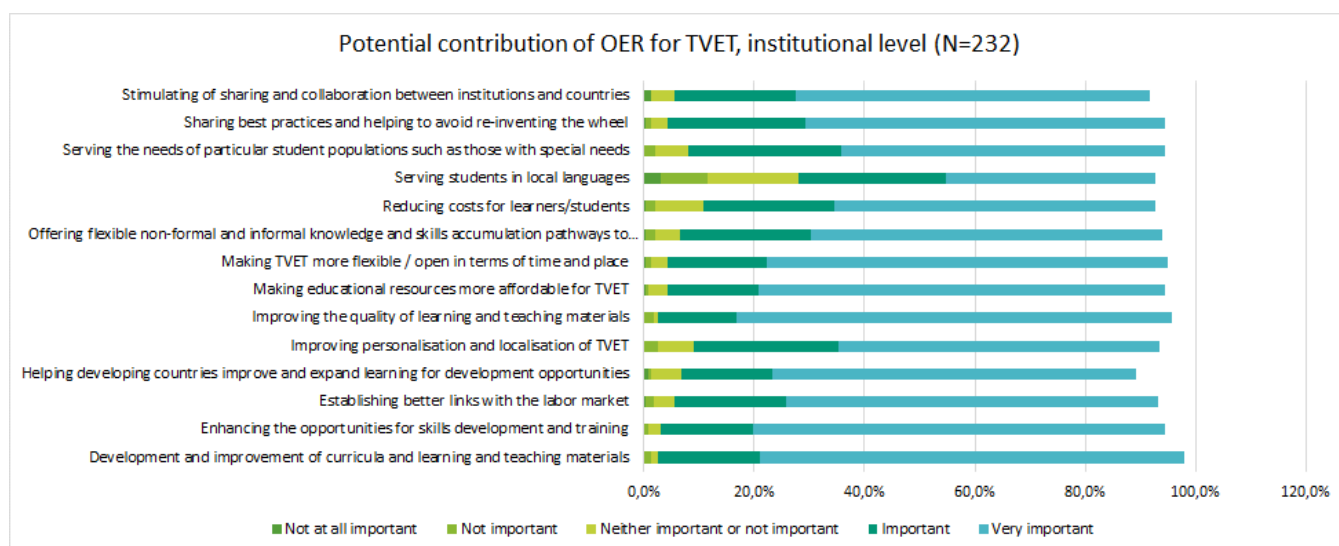
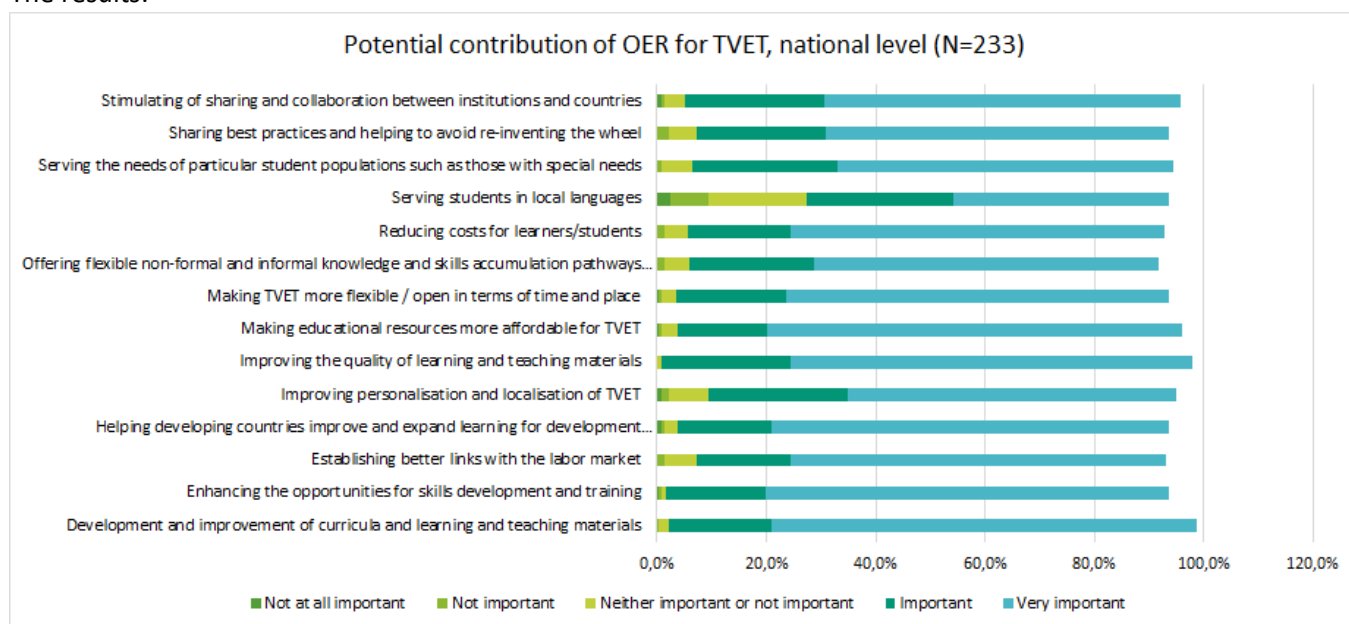
3.2 Use of OER in TVET

3.2.1 Potential contribution of OER for TVET (U0)

Question: In your opinion, how important is each of the following potential contributions of OER for TVET?

This question could be answered from a national and/or institutional perspective.

The results:



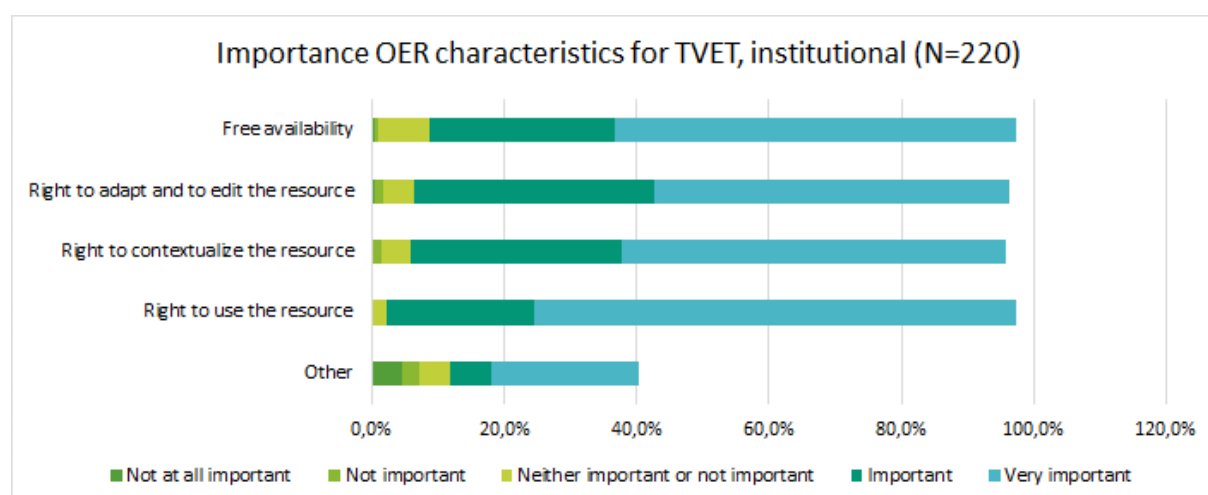
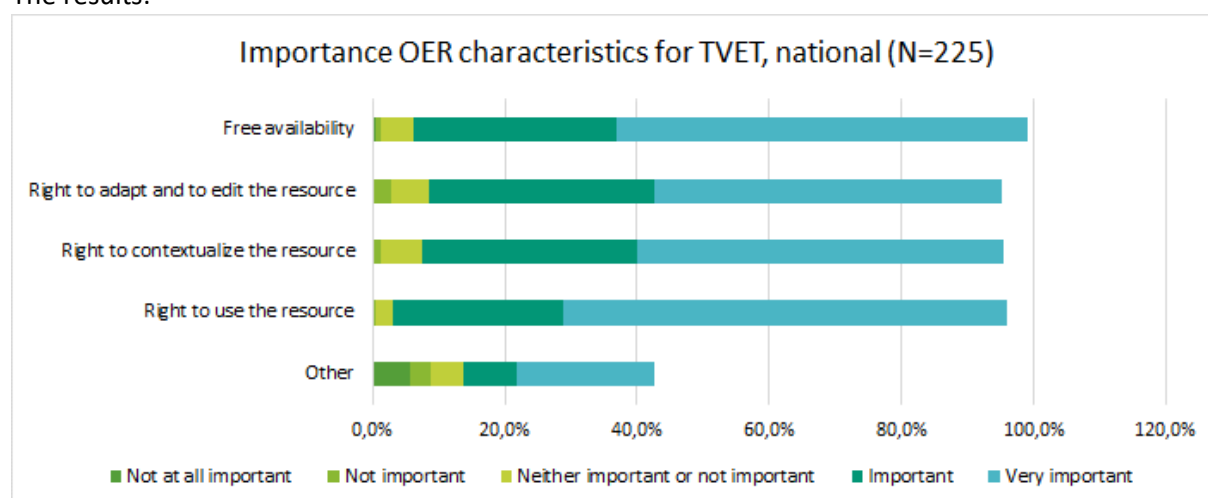
On both viewpoints all but one potential contributions are considered (very) important by >80% of the respondents. The exception is “Serving students in local languages”, with 66.1% (national viewpoint) respectively 69.7% (institutional viewpoint) considering this (very) important.

3.2.2 Characteristics of OER for TVET (U1)

Question: How important do you consider each of the following characteristics of OER for TVET?

This question could be answered from a national and/or institutional perspective.

The results:



Mentioned under “Other”:

The right to disaggregate material for use in 'small chunks' for informal learning, as well as formal learning. The right to input to maintenance of resources, eg changes in industry, changes in regulation, continuous improvement feedback.

The US operates under a free market framework, that is currently lifting the peddle on education funding and involvement, as a result there is little directive from that level. The effect is at the institutional level an increase in open source free materials. The problem is the abundance of OERs without data that assures measurable outcomes and or it is tightly industry specific. What that means in effect is training, and subsequent credentialing, channels TVET/CTE education toward increasing vocational only tracks, which in today's labor market and anathema. New labor markets require innovation and non repetitive work, while the current OER's available do not encourage or model. Subsequently, sustainable programs are designed independently at the institutional level in conjunction with private-sector advisory structures. Functionally that means no coordination and no real way to test OERs for credible outcomes.

Facilities, rules and regulation for access the material.

Suggesting continuous improvement of the OER
access to global trends
Flexibility has been slow in catching up in Zambian examining authorities, and as such institutions do not offer much in terms of flexibility. It would be a welcome paradigm shift if institutions came up with courses that would address this as long as they would be recognised nationally
Improved blended online teaching strategy
ACCESSIBILITY
CHOICE OF CONTENT
very important
Not Applicable.
Bamboo technology very important in India
-
access to resource
Portability of Open Educational Resource materials in multiple platform applications.
allowing editing may compromise the quality of resources
improving access to TVET and promotion/attractiveness of TVET
none
None
Easy assessment
Built from free sources
Right to share the resources
Ingenious institution should find alternative income sources other than government and school fees to reach out to the disengaged learners who are out of reach but training institutions must reach. Needless-to-say, some of the learners may never find their way to school and the school must find and reach them. Some of those already under training require some support for personal care and project execution and the school will have to find the means to render such support. Periodic staff development is priceless and institutions must invest in that too. This is the only way to make equity meaningful in OER/TVET.
OERs leads into authentic studies and critical thinking
Communication between the users and the expertise. Adequate training and seminar
involment of the implementers from the beginning of the programme
Providing refresher courses to trainers and sending them out on industrial placement so to meet current standards and apply it to teaching and learning
Flexibility
nothing
1. Understand Open Licenses and what they permit, and 2. to Release Government funded Educational Materials with Open License.
OER comes in a variety or they are diversified hence users choose the best.
right to use the resource also in commercial settings
It is very important to license OERs under common creative. My observation has been that in Zambia many people get discouraged to develop OERs as individuals because the feel nothing will accrue to them (financial incentives). However, when subject specialist are gathered together and paid some allowances, then you find that the same people do not mind their work to be licensed under common creative
To reach out to disengaged students, institutions should make entry requirements and training sessions adaptable for the disengaged learner to get robed into schooling and training.
"Free availability" might not be relevant on a national level when most schools do not have access to internet.
Students to have a conducive environment to learning.

to form a consortium which can give recognition and accreditation to OER based TVET courses, which would make it more popular for learners to choose what materials and where they want to do their course from. As more and more learners would move towards OER based courses then more institutions will start shifting their focus and using OER in their course delivery.
NA
Availability of OERs across various platforms
The right to own resources
Speaking about the Right to adapt and to edit the resource we believe that only official developers of the open resources can make some changes and edit their files if they are asked by users or in case if such a decision was made by a group of teachers or trainers who participated in developing such a course.
Right to reproduce and adapt
clarity of ownership rights/ obligations and ability to protect own brand/ IP if necessary
Right to adapt local languages for participants that may be disadvantaged by the common language
other
Integrating formal and non formal TVET
The age category of students should reflect the age required by the labour market.students should complete basic secondary school education at least to grade 10.competency trade tests should be taken seriously to check students performance as there is no written exams.
General database of OER with easy international availability.
Sustainability
Right to access the content
Right to make translations of resource in local languages.
distribute for educational purposes
Right to share information
Ease of access to OER by students(Reliable internet and reading apps)
Non-discrimination (gender, color, sexual , Nationality)

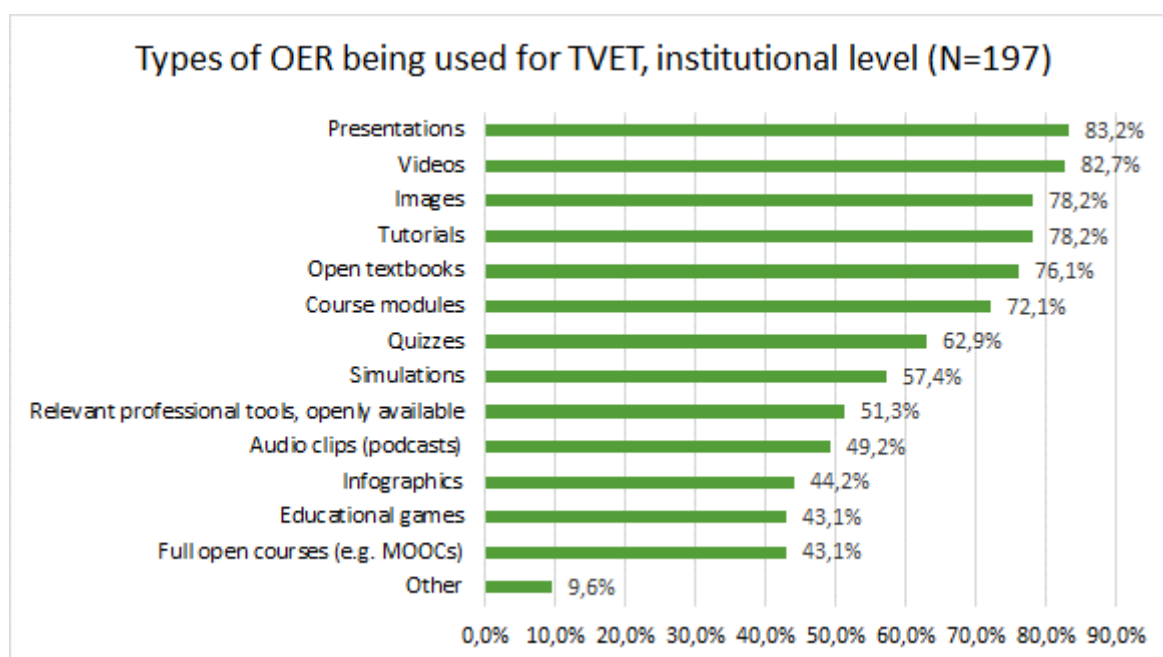
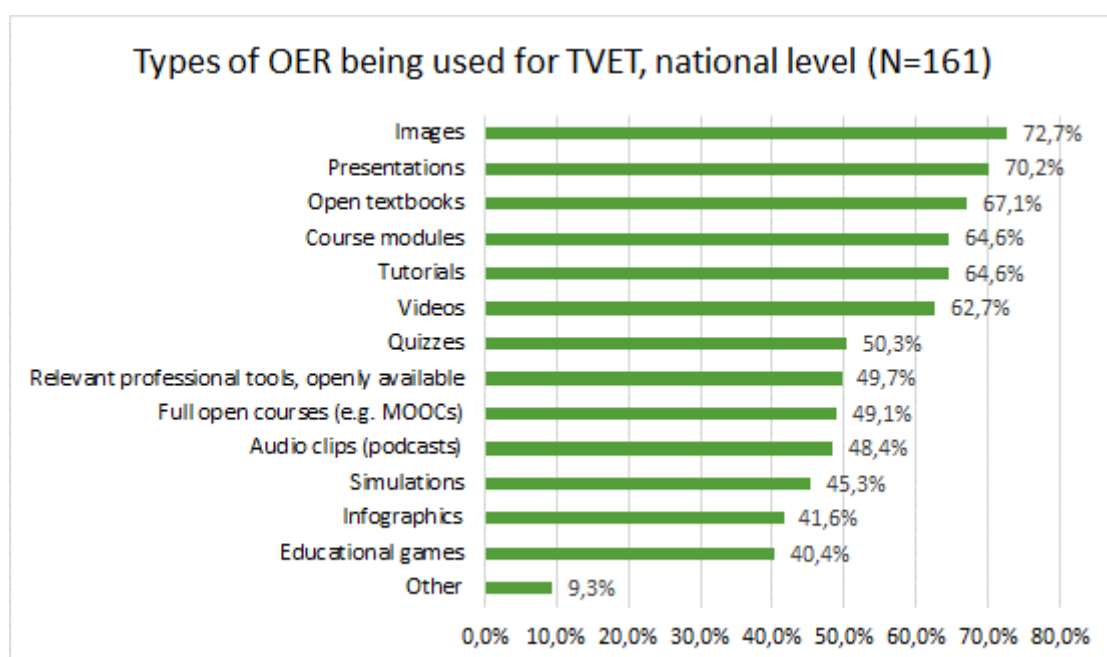
On both levels, >85% consider the free and the rights to adapt, contextualize and reuse (very) important. The comments made under the “Other” option, although in some cases not directly an answer to the question, are providing points of attention when using or planning to use OER.

3.2.3 Types of OER used (U2)

Question: What kind(s) of OER are being used for TVET in your country or institution [Tick all that apply]

This question could be answered from a national and/or institutional perspective.

The results:



Mentioned under "Other":

National standards for occupational competencies in the way of training packages are freely available in Australia. However, some 'proprietary' accredited courses are not available. It is also very difficult to determine the content (curriculum) of these proprietary courses. I am not supportive of such products.

Again, the US context is open source that also includes collaborative OERs that often rely heavily of Google. The problem with them is the inconsistencies of internet connectivity between institutions which limits access at the institutional level.

difficult to answer for me as we are not an educational institution ourselves.

NOT APPLICABLE
N/A
OER good opportunities in India
-
None
Minimum Guide Curriculum and Course Specifications for all TVET Programmes/Courses
HAND OUTS AND BOOKLETS
By courtesy of the Commonwealth of Learning we are using the Aptus classroom without walls.
Industrial Attachment and Internship exercises and exhibitions and fashion shows
Google Classroom Resources
C.B.A and C.B.T Assessments, to be carried out by FHEC Assessors
CBA and CBT assessment to be carried out by FHEC assessors.
NA
Special projects
In Sri Lanka all TVET courses are free including teaching learning material
quality assurance , Accreditation and Qualifications

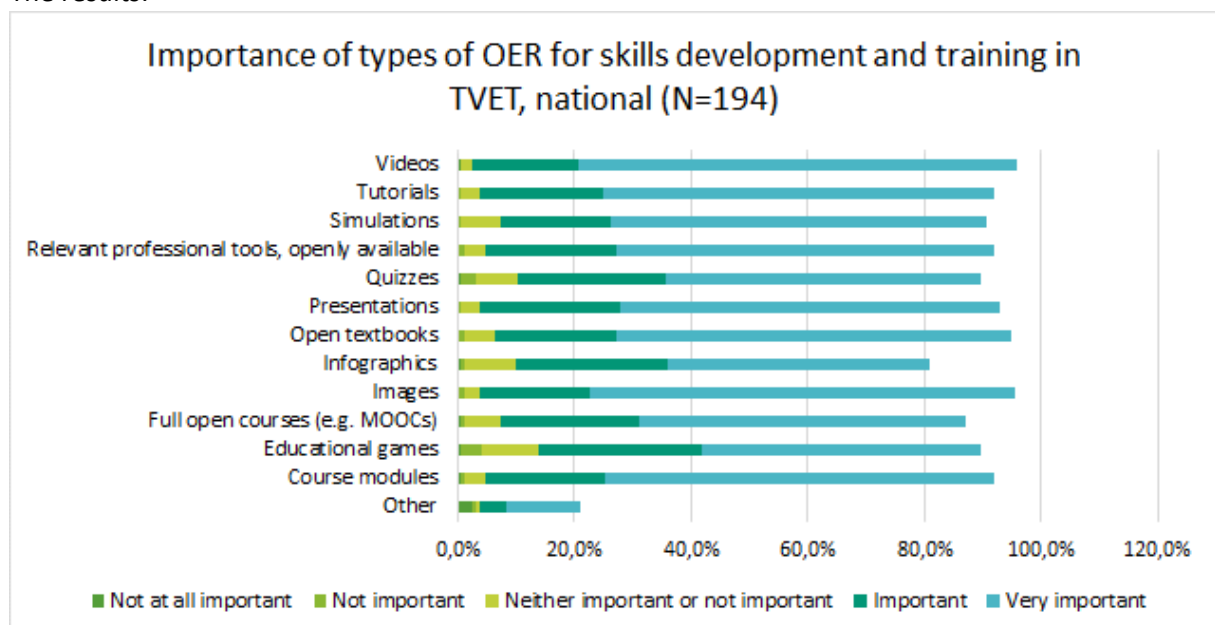
Notable is the difference between both levels in using video (62.7% national vs 82.7% institutional).

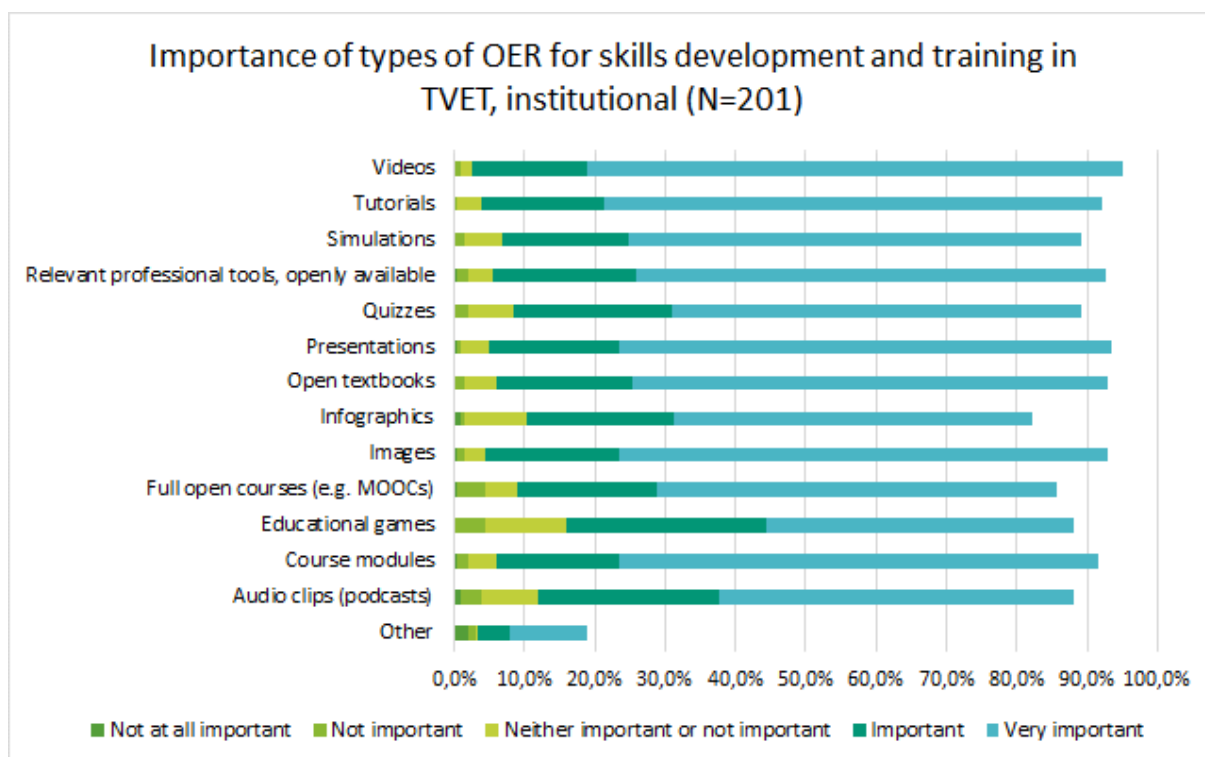
3.2.4 Importance of types of OER for skills development and training in TVET (U20)

Question: How important do you consider each of these following types of OER for skills development and training in TVET?

This question could be answered from a national and/or institutional perspective.

The results:





Mentioned under “Other”:

Again, the US context is open source that also includes collaborative OERs that often relay heavily of Google. The problem with them is the inconsistencies of internet connectivity between institutions which limits access at the institutional level.
TAKE AWAY ASSIGNMENTS
None
Virtual learning centre be set up by the ministry in all Tvet institutions
N/A
very important
Training at the Industry sites
Nil
take away assignments
used in the "right" setting. OERs are not an end in itself
Courses being assess by Fiji High Education Assessor.
Live webinars
Practical demonstrations where applicable
quality assurance , Accreditation and Qualifications

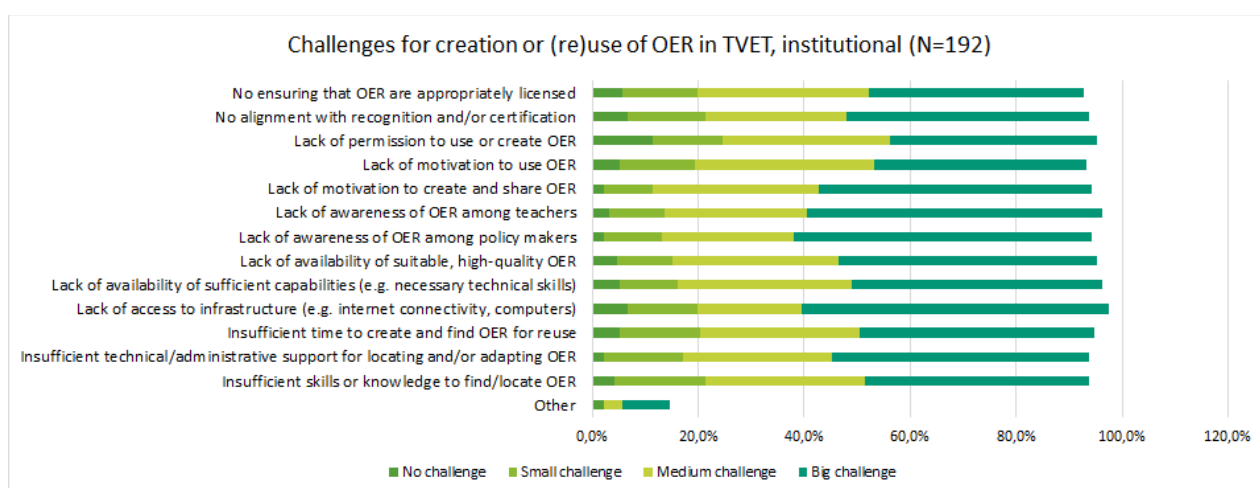
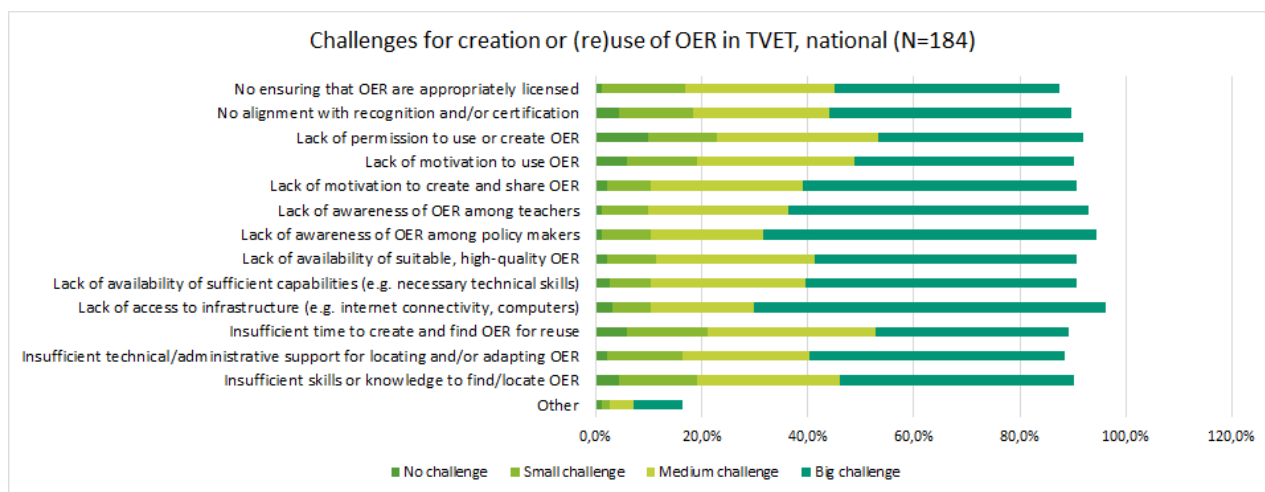
On both levels, all mentioned types of OER are considered (very) important for skills development and training in TVET by >70% of the respondents, with infographics as the least mentioned and videos as most mentioned.

3.2.5 Challenges for OER in TVET (U3)

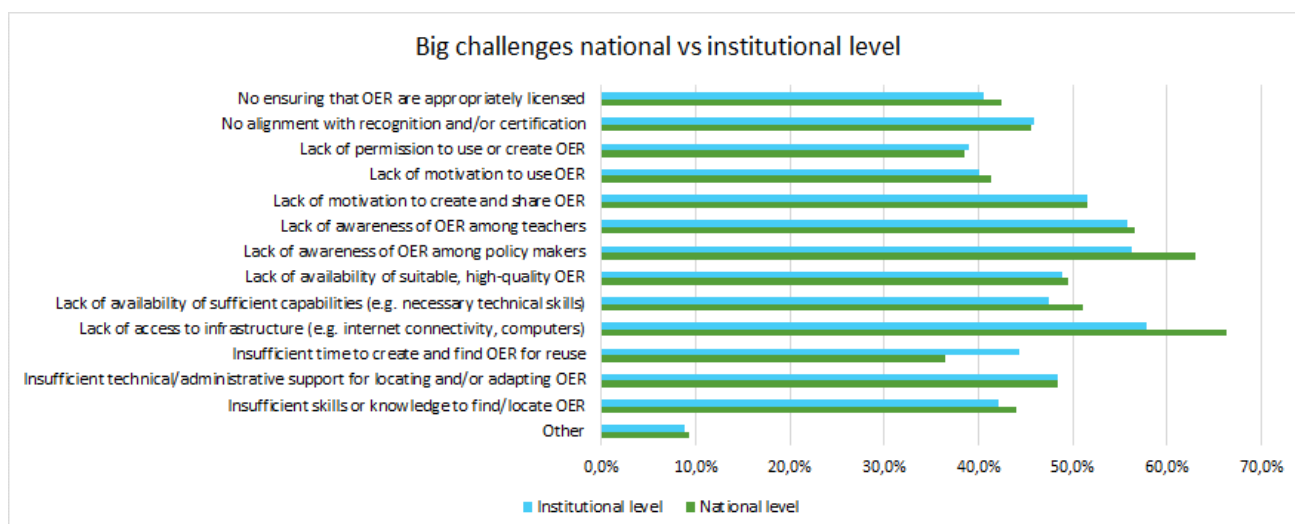
Question: Indicate to what extent each of the following factors is a challenge for the creation and/or (re)use of OER for TVET

This question could be answered from a national and/or institutional perspective.

The results:



Comparing big challenges between both levels:



Mentioned under “Other”

Again, the US context is open source that also includes collaborative OERs that often relay heavily of Google. The problem with them is the inconsistencies of internet connectivity between institutions which limits access at the institutional level. Moreover, the national level does not participate at this level (either state or federal). At the state they may offer guidance or collaborate (with informative intent no more) with the institutional level to determine OERs for credentialing purposes but lacks continuity since OERs are also unfunded when mandated. What this means is institutions must generate local adequate funding for internet connectivity, as there is no state or federal support for this.
LOGISTICAL CHALLENGES
Teaching related staff or expert
Lack of knowledge among TVET managers and the current perception of TVET in developing countries
N/A
big challenge
Getting in constant contact with Industries for simulations
None
Lack of access and adequate electricity, digital devices, and the Internet.
The challenge that I indicated as Other is time. There's not enough time for teachers already are loaded with more than enough work.
SMALL AND POORLY EQUIPED LIBRARY WHERE THE OERs CAN BE ACCESSED FROM. THE CHALLENGED IS EVEN GREATER COMPARING THE NUMBER OF STAFF AND STUDENTS VISAVIS THE SIZE OF THE LIBRARY IN OUR CONTEXT.
Strong emphasis and motivation from top will spur higher acceptance and participation
Lack of motivation to use local resources
The amount of work and responsibility involved needs a viable pay structure for trainers so they feel motivated to teach and develop skills and the time they are giving to developing OER will be elected in that pay structure

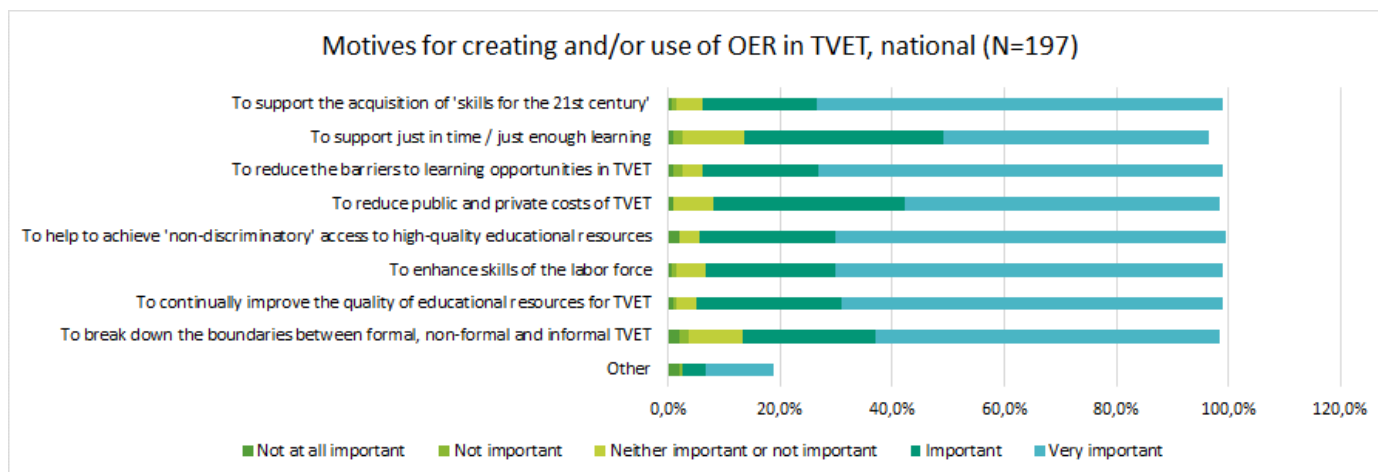
With two exceptions, on both levels all challenges are considered medium or big by >70% of the respondents. The exceptions are both on national level, the challenges “Insufficient time to create and find OER for reuse” (67.9%) and “Lack of permission to use or create OER” (69%). Comparing the big challenges between the two levels, the largest differences are for the challenges “*Lack of awareness of OER among policy makers*” (63.0% national; 56.3% institutional), “*Lack of access to infrastructure (e.g. internet connectivity, computers)*” (66.3% national; 57.8% institutional) and “*Insufficient time to create and find OER for reuse*” (36.4% national; 44.3% institutional).

3.2.6 Motives for creating and/or using OER in TVET (U4, U5)

This question could be answered from a national and/or institutional perspective. The motives to consider differ per viewpoint.

Question (national level): From a national viewpoint, to what extent is each of the following factors an important motive for creating and/or using OER for TVET?

The results:



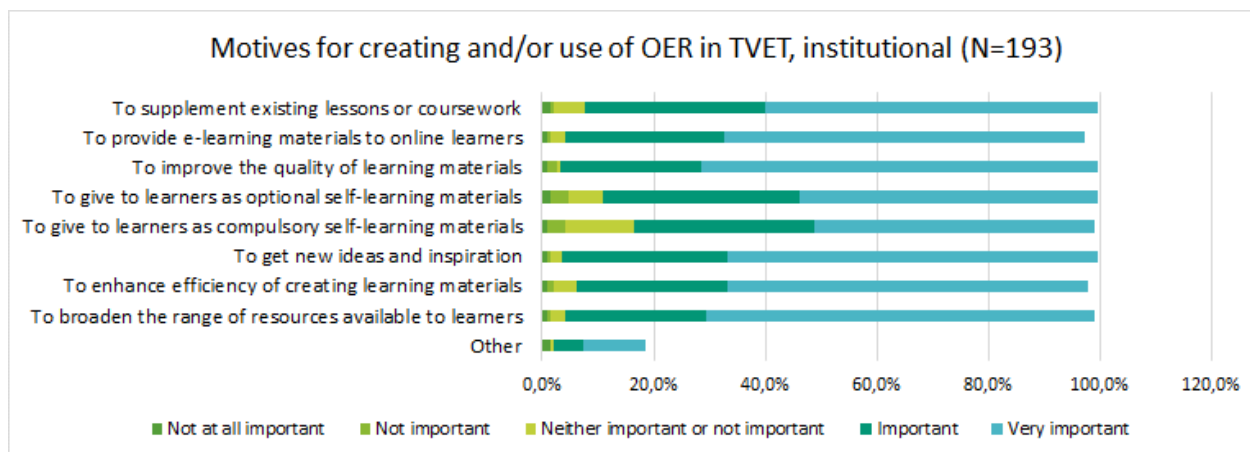
Mentioned under “Other”

To facilitate continuous personal & professional development through Lifelong learning
I tried to answer from a German point of view, where I believe availability of high-quality ER is not a problem as there is also a lot of money being spent on such resources.
POLICY REVIEWS ARE ESSENTIAL TO KEEP ABREAST WITH ISO 9001:2015 REQUIREMENTS
None
N/A
To allow continuous learning when trainers are not available
Clarity of meaning of TVET vs: CBET ? If TVET needs to be broader than vocational skill alone. Competency based links both learning and doing with underpinning knowledge, skills, attitudes and performance to industry standards nationally and globally.
None
recognise skills already acquired informally. eg mechanical skills, building , hairdressing etc
To Promote Life Long Learning.
There are many students who cannot attend face to face trainers as well as most TVET education resource are outdated.
NA
Villagers
Skills in training
Sustainable development of the project
open TVET Qualifications

All motives are considered (very) important by >80% of the respondents.

Question (institutional level): From an institutional viewpoint, to what extent is each of the following factors an important motive for creating and/or using OER for TVET?

The results:



Mentioned under “Other”

For sharing purposes and develop community of practice
None
N/A
To have flexible and blended learning to achieve learnig objectives
None
allow more inno0vation and fund the best innovations
To contextualise learning
First to Understand the Open Licenses and what they permit.
Provision of Internet communications
To widen learner exposure of TVET from other regions
The Quality Assurance of the open TVET Qualifications
To ensure learning products meet set standards. If OER is more prominent in TVET the standard of learning products can be more closely monitored. Good TVET trainers will then use the products in ways which maximise their expertise as trainers without having to invest so heavily in developing materials (which may or may not meet the required standards).
OERs for the moment are supplemental resources. They neither replace nor supplement, and do not serve to deskill teachers. This is important since the character of TVET learning models is hands on, which requires the direct guidance of the mentor teacher. Most "e-learning" in this case serves students who are or have been home sick and are used to catch up. Efficiency is a strange piece here, again it implies deskilling teachers, which I offer the following as food for thought: Teaching is not seated within the realm of productivity ROI measurements, and if the intention of this line is "easier" that is quickly displaced by one of the cornerstones of good teaching practice, especially prevalent in TVET- differentiated instruction.
I believe the relevance of OER depend a lot on the context of a system, so it is difficult to give generalized answers.
DISSEMINATE INFORMATION ON COMPETENCY BASED EDUCATION AND TRAINING TO ADD VALUE TO LEARNING

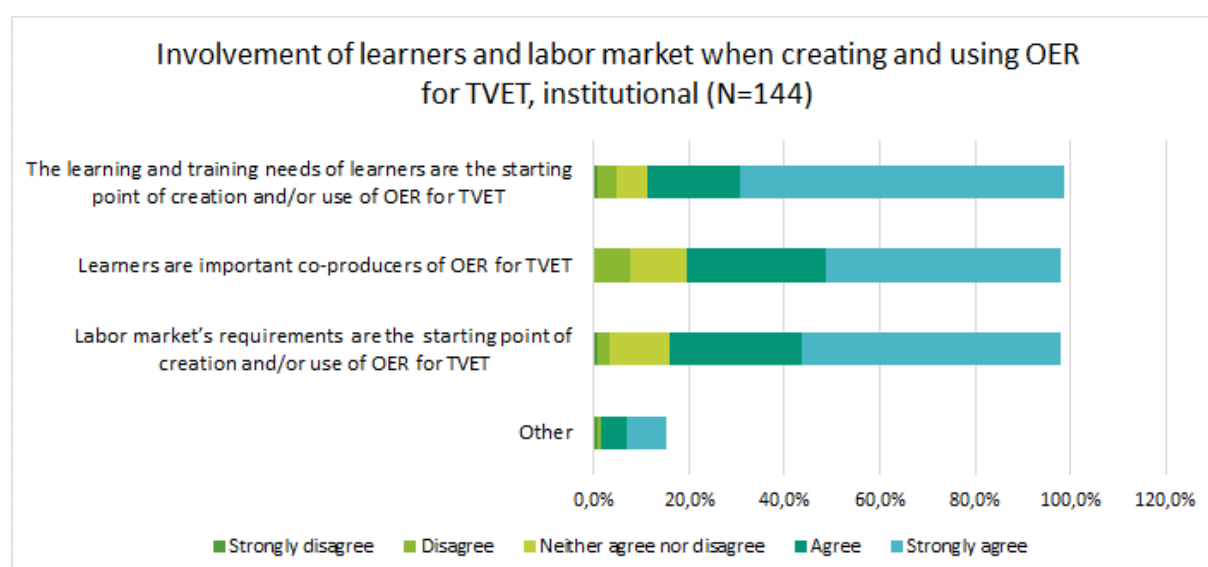
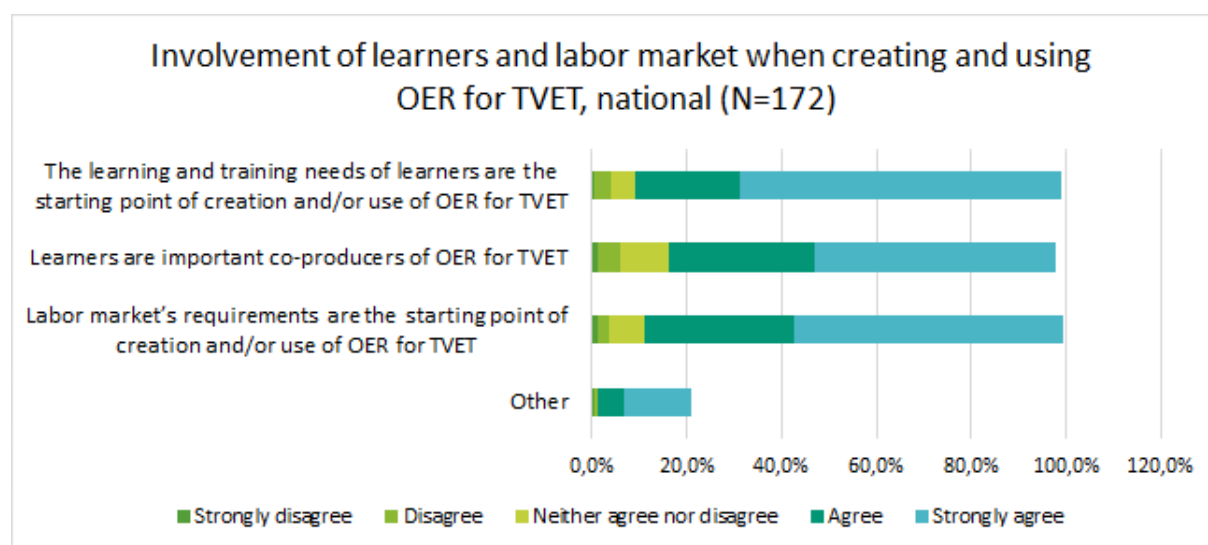
With two exceptions, all motives are considered (very) important by >90% of the respondents. The two exceptions are “*To give to learners as compulsory self-learning materials*” (82.4%) and “*To give to learners as optional self-learning materials*” (88.6%)

3.2.7 Involvement of learners and labor market (U6)

Question: Please indicate to what extent you agree with each of the following statements about involvement of learners and labor market when creating and using OER for TVET.

This question could be answered from a national and/or institutional perspective.

The results:



Mentioned under “Other”:

Requirements of TVET trainers also need to be considered in development.
IMPARTATION OF HANDS ON SKILLS
trainers knowledge and experience is core
None
REVENUE GENERATION
Available technology is very important in producing OERIndustrial requirements too - surveys to be done
Subject Matter Experts needs and opinions are the starting point of creation and/or use of OER for TVET.
feedback from experienced trainers is important in planning for the programme
Learner centred activities are crucial
Learner demography and diversity is equally relevant
NA

How can you start with labour market requirements when there is a new innovation. There is no market. The market has to be created, so often one needs to start with a "guess" of the future labour market. For example in 90s we began a programme for training

Stability of the labour market

LEARNING OF SOLUTIONS IN SOLVING OF SOME PROBLEMS

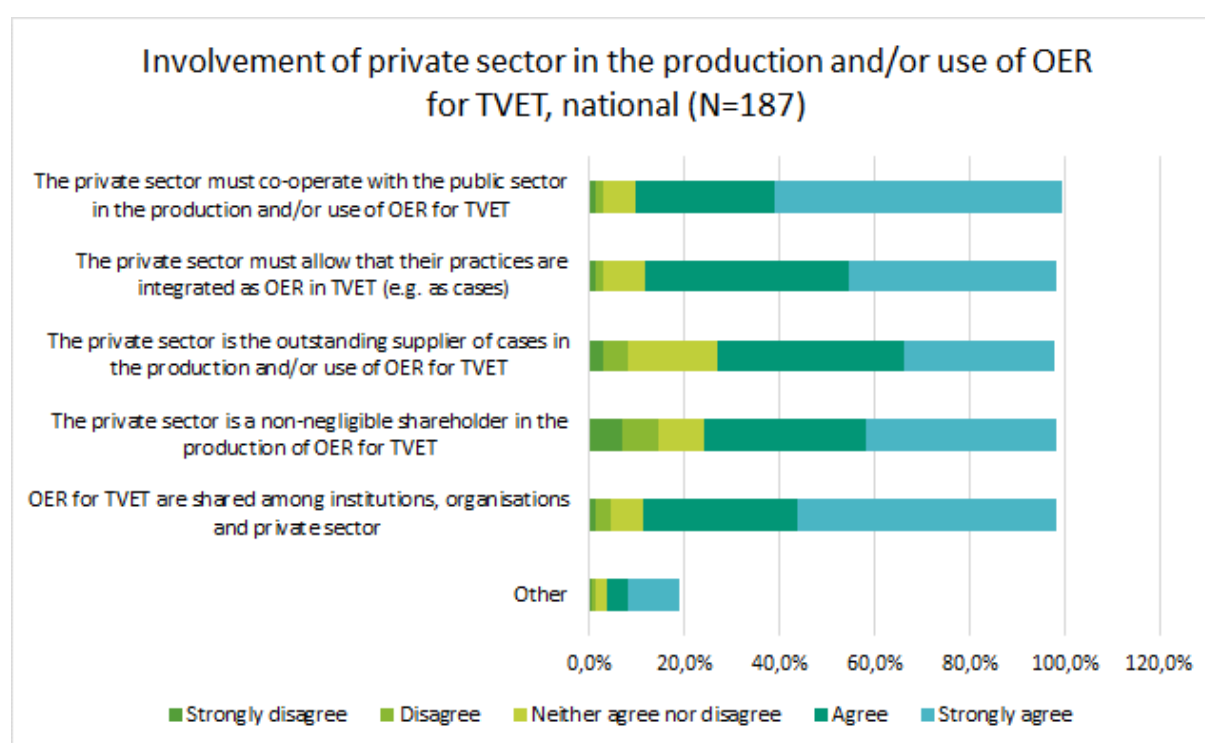
The results indicate that for creating and using OER for TVET, both from national and institutional viewpoint the needs for learners and labor market are taken into consideration. Further, learners are largely involved in creating these OER.

3.2.8 Involvement private sector (U7)

Question: Please indicate, from a national viewpoint, to what extent you agree with each the following statements about involvement of private sector in the production and/or use of OER for TVET.

This question could only be answered from a national viewpoint

The results:



Mentioned under "Other":

The private sector in the US differs from many countries. While they collaborate at the institutional level, their labor position (local and national) is workers must be already qualified with AT LEAST two years of experience before hiring- that experience is not gained by OER learning, credentialing, internships or apprenticeships.

NOT APPLICABLE

The private sector is a non-negotiable partner in the creation of NOS and TVET competency units. Whether these are OER or not is a different issue. These statements are loaded and cannot sensibly be answered on a likert scale. Private sector engagement is needed in the development of learning resources - again, whether these are OER or not is a different issue.
Private sector to co-fund the development of OER materials
None
N/A
Private sector should sponsor the production of OERs in their various areas.
The private sector should review and add value and quality assure OER
None
Private sector should see the OER for TVET a call to duty which will return to uplift the private sector
NA
Partnership with private sector
Build the open TVET programs based on the occupational standards

The responses indicate the opinion that the private sector should be involved in production and/or using OER for TVET, both in contributing experiences (cases) and manpower to producing OER as in using OER, created by other parties. The question remains the extent to which this is actually made into practice.

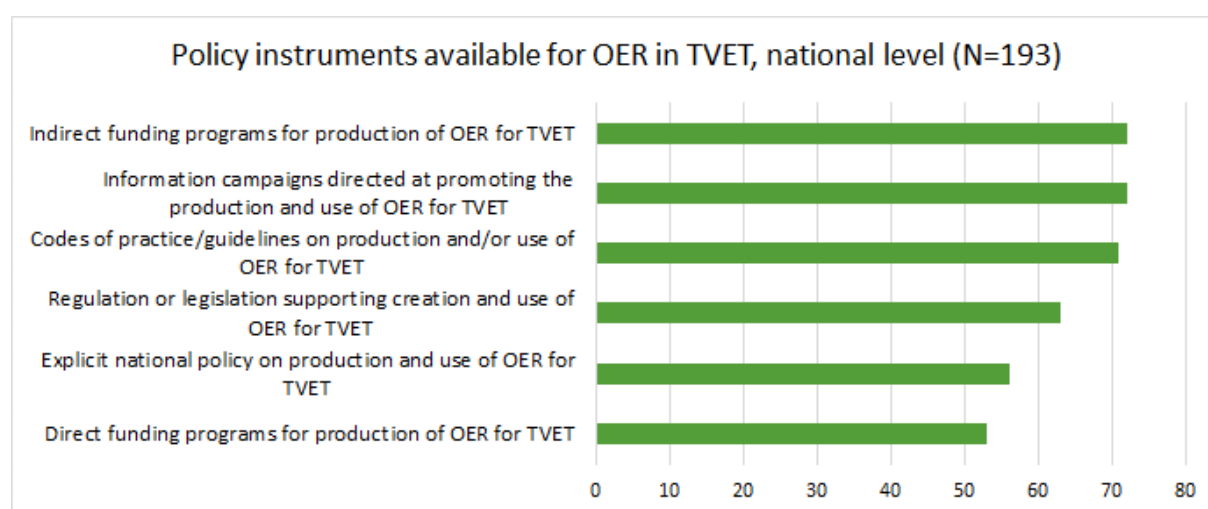
3.3 Support for creating and using OER in TVET

3.3.1 Policy instruments for OER in TVET (S1, S2)

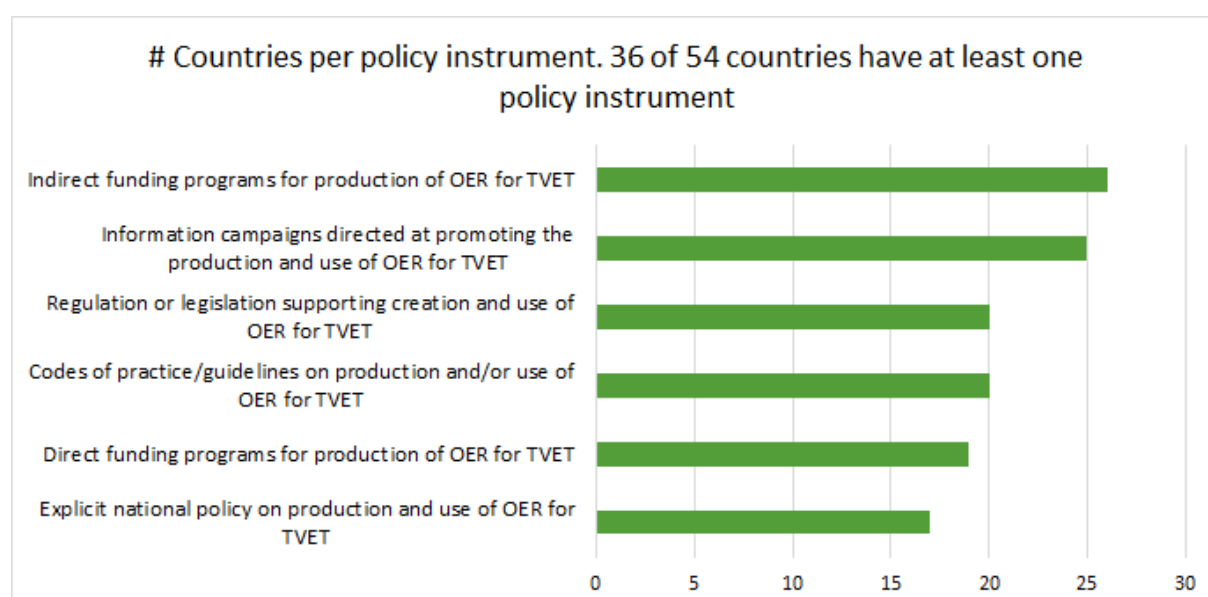
This question could be answered from a national and/or institutional perspective. The instruments to consider differ per viewpoint.

Question (national viewpoint): For your country, please indicate which of the following policy instruments with regard to OER for TVET are available [Tick all that apply]

The results:



Responses came from 36 different countries (of a total of 54 countries having responded on this survey). The number of countries indicating having a specific policy instrument:



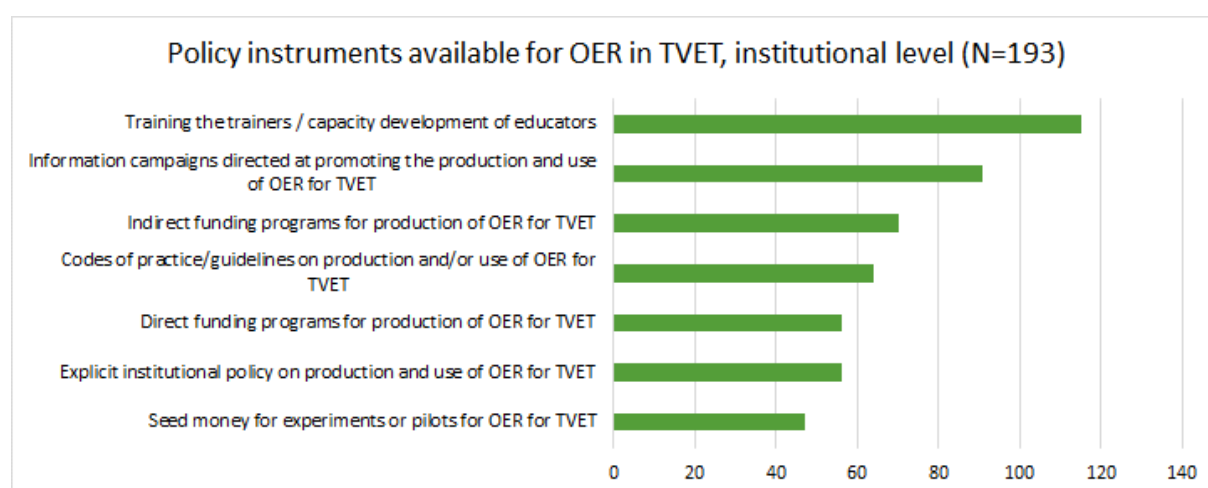
The 17 countries that are indicated having an explicit national policy on production and use of OER in TVET are: China, Fiji, Germany, Ghana, India, Islamic Republic of Iran, Kenya, Liberia, Madagascar, Mauritius, Nigeria, Pakistan, Sierra Leone, Spain, Tanzania, Vietnam and Zambia.

Mentioned under “Other”:

NA
Regulation/legislation at the state levels of agreed upon industry certifications through industry specific software programs that are tied to certification assessments.
none
RESEARCH AND DEVELOPMENT IS ESSENTIAL
I work in 22 countries
An not very aware of my Country's Policy on OER
None
I am not conversant with these
Still we don't have any policy on OER
-
none
Rarely implemented,very lousy system.Trades people are not valued .
don't know
TRAININGS ON USE OF OER
Fragmented initiatives are managed by allied institutions - COTVET, NAB, NTCE, TEU, and NABPTEX
There is hardly to very little national support to promotion of OER.
no relevant national information is available.
Note: This is for the province of Alberta in Canada. There is no national education authority.
Not sure of what policies are in place at this time.
None of the above
more institutionalized efforts than a national agendal
The enforcement to implement the national policy and standards in practice should be strengthened (fortified).
NON OF THE ABOVE

Question (institutional viewpoint): For your institution, please indicate which of the following policy instruments with regard to OER for TVET are available [Tick all that apply]

The results:



Mentioned under “Other”:

NA
none are available

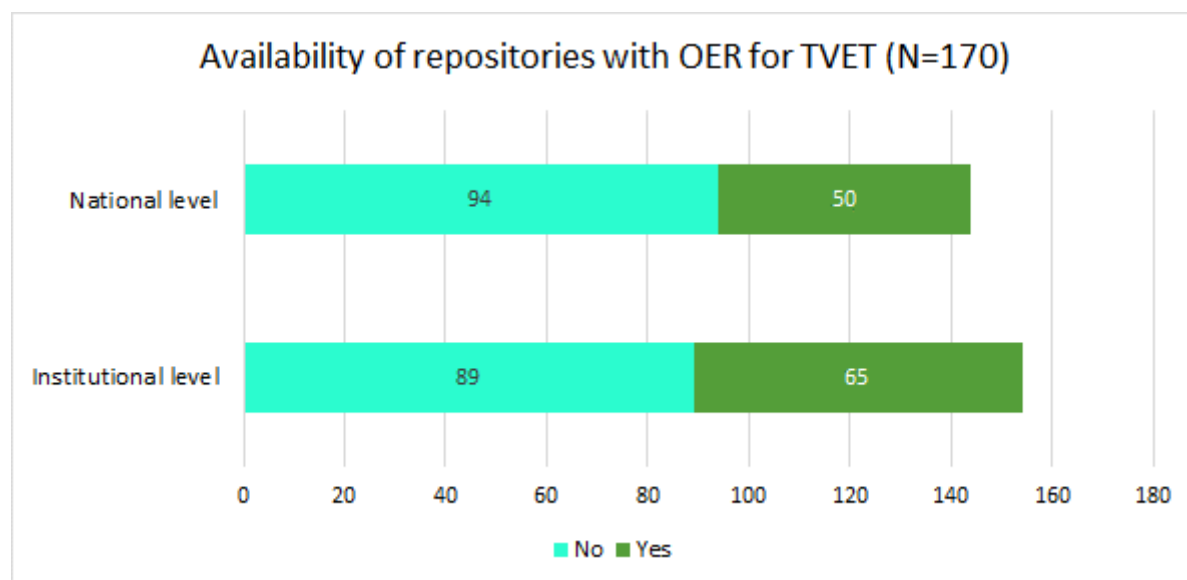
RESEARCH AND DEVELOPMENT IS ESSENTIAL
COL is actively engaged in capacity building and promotion of OER in TVET
This Policy is currently on course in my Institution . Undergoing production.
Staff are paid for the development of Modules
Publication and trials to improve quality
None of the above apply.
don't know
TRAINING OF CHAMPIONS FOR OER
There allied policies related to OER but not explicitly stated OER policy
There is some institutional support to the promotion of OER.
Not exist yet
We have none
WE HAVE NONE
WE HAVE NONE
external support from COL and Open University of Tanzania
NON OF THE ABOVE

Indirect funding (national), campaigns to raise awareness (both national and institutional) and capacity building programs (institutional) are mentioned the most.

3.3.2 Repositories with OER for TVET (S3)

Question: Are there (one or more) repositories with OER for TVET available, at national level and/or at institutional level?

The results:



The next question asks for URL of the repositories: If you have indicated in the previous question that one or more repositories with OER for TVET are available, provide the URL's to access this repository / these repositories.

The results:

http://ldt.eworks.edu.au/Resources.aspx (many links no longer viable).
https://bccampus.ca/open-education/

http://www.tvet.org.cn/html/index.html
http://jpkc.szpt.edu.cn/
www.wotetti.ac.ke
oasis.col.org doer.col.org
https://oerworldmap.org/resource/urn:uuid:706afcec-77eb-11e5-9f9f-c48e8ff4ea31
https://oerworldmap.org/resource/urn:uuid:706a950e-77eb-11e5-9f9f-c48e8ff4ea31
http://www.practical.org/healthoer
www.kttc.ac.ke - ICT, ODeL Department
www.nbte.gov.ng
Www.out.ac.tz
https://edunorth.wordpress.com/ This is my database, with links to many resources nationally. You will have to sift through it.
www.nbte.gov.ng
https://www.col.org/programmes/open-educational-resources/developing-odfl-and-oer-policies-kenya
http://usp.ac.fj.libguides.com/freeresources
don't have any for tvet but for research the link is : http://repository.usp.ac.fj/
http://ocw.lms.athabasca.ca/
https://textbooks.opensuny.org/open-source-textbooks/
www.unn.edu.ng .
www.tisbi.ru
https://www.tknika.eus/en/materials/
http://www.gastronomiavasca.net/en/gastro
Institutional reference: https://ethazi.tknika.eus/es/
National references: http://exelearning.net/ https://procomun.educalab.es/
ethazi.tknika.eus
http://irekinfpeuskadi.com/
http://prola.aps.org/search
http://www.aip.org/pubs/
http://journals.cambridge.org
http://www.palgrave-journals.com/
http://www.rsc.org/Publishing/Journals/DigitalArchive/available.asp
http://onlinelibrary.wiley.com
http://www.journals.uchicago.edu
There are multiple but not formal.
Nil
Moodle
As an institution we are using the Aptus as I have already indicated.
1. National Board for Technical Education 2. Director, Flexible Skill Development Unit, Yaba College of Technology, Yaba, Lagos, Nigeria.
NA
Modules videos and funding is available through ministry of Education tvet section
Calibre Library repository available through local area network
Vocational and technical education and training institutions are needed In the Blended training (face to face and E- training)

Analysis of these resources learns that only a small number of them have available OER for TVET. The following table provides an overview with the following describing elements:

- Setup: institution or department who have setup and maintains the site
- TVET: Fraction of the site dedicated to TVET.
- Support tools: availability of tools (like templates for policy documents) for creation or using OER

All sites in the next table also contain general information: policy documents, information about non-free courses and programs, projects, referrals to other useful sites et cetera. Resources are in English, Spanish, Basque or Chinese.

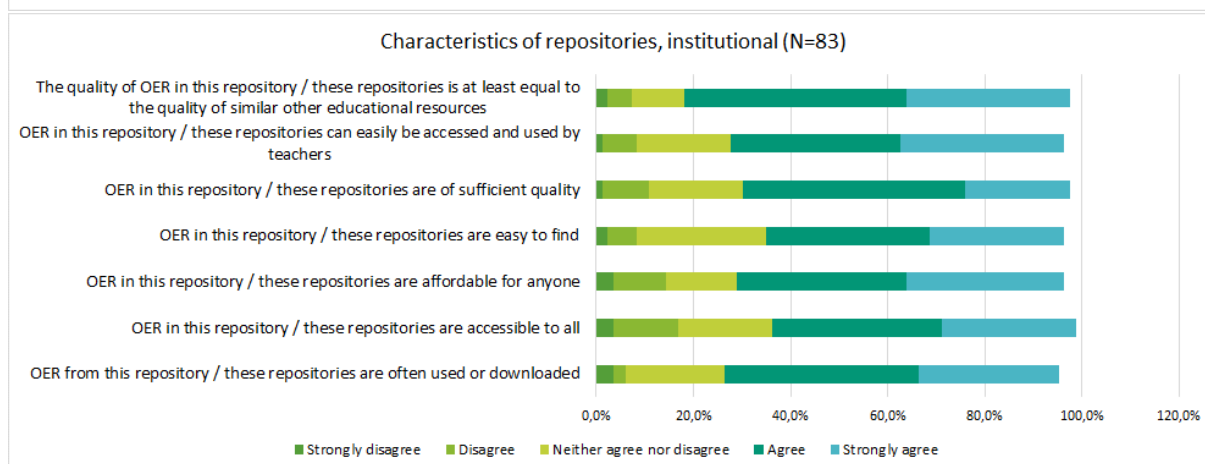
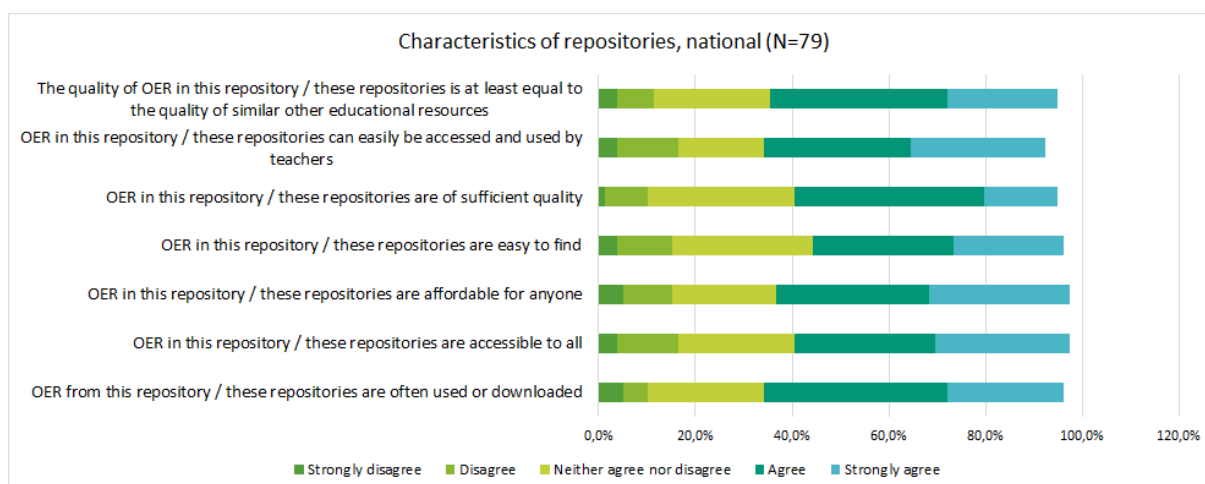
URL	Setup	TVET	Support Tools
http://ldt.eworks.edu.au/Resources.aspx	Australian government	A.o.	Yes
https://bccampus.ca/open-education/	BCCampus, Canada	Small %	Yes
http://www.tvet.org.cn/html/index.html	Chinese Vocational Education Resources Information Network	Yes	Yes
http://usp.ac.fj.libguides.com/freeresources	University of South Pacific.	A.o.	Yes
http://ocw.lms.athabascau.ca/	Athabasca University	Small %	?
https://textbooks.opensuny.org/open-source-textbooks/	State University New York	Small %	No
https://www.tknika.eus/en/materials/	Tknika (Spain/Basque)	Yes	No
http://www.gastronomiavasca.net/en/gastro	Leioa School of Catering (Spain/Basque)	Yes	No
https://procomun.educalab.es/	Ministry of Education, Spain	A.o.	No

3.3.3 Characteristics of repositories (S3b)

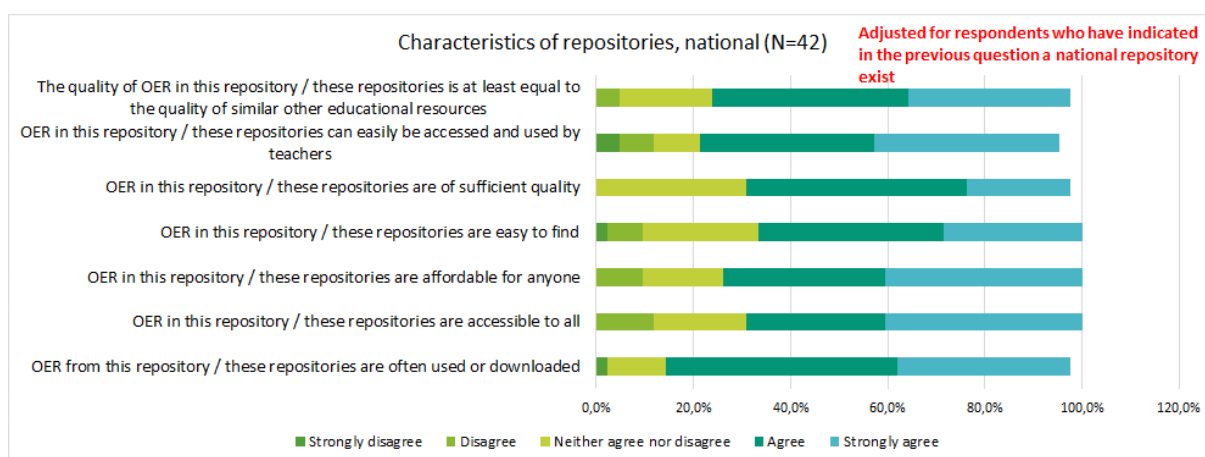
Question: If you have indicated that one or more repositories with OER for TVET are available, please indicate to what extent you agree with each of the following statements about this repository / these repositories.

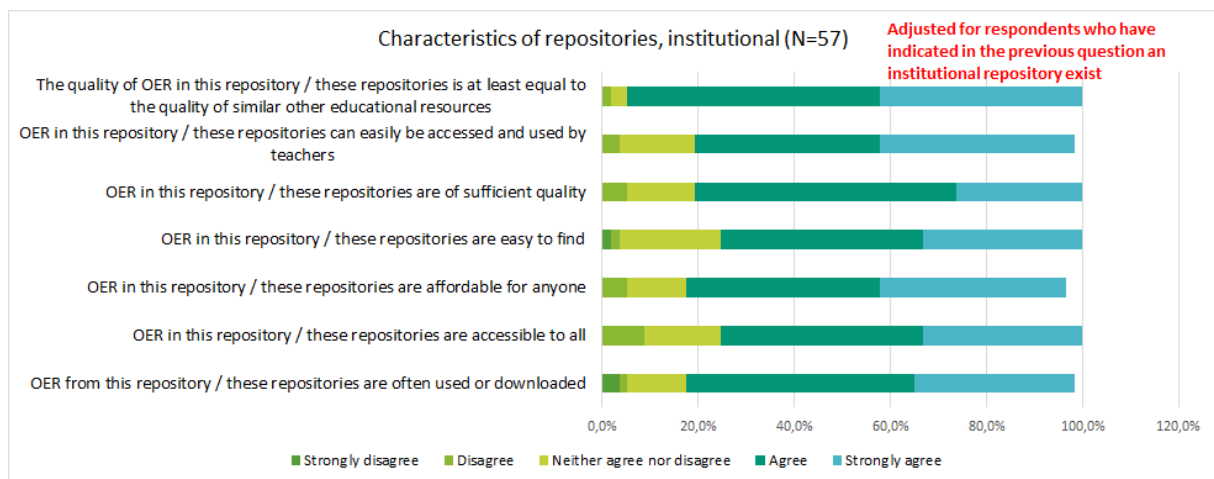
This question could be answered from a national and/or institutional perspective.

The results:



Filtering the results to those respondents who have indicated in the previous question that a national respectively institutional repository exist:





All statements are formulated in such a way that a (strong) agree indicates a high quality of the repository on the respective characteristic. On average, the quality of repositories on institutional level is judged higher than national repositories by the respondents who in the previous question have indicated a national or institutional repository exist (ranging from 66.7% - 83.3% (strong) agree on national level vs 75.4% - 94.7% on institutional level).

3.3.4 Languages of OER in repository (S3c)

Question: If you have indicated that one or more repositories with OER for TVET are available, indicate the used languages of the OER in these repositories.

This question could be answered from a national and/or institutional perspective.

The results:

National (N=51)	Institutional (N=54)
Arabic language	Arabic language
English (35x)	English (32x)
ENGLISH & KISWAHILI	ENGLISH & KISWAHILI
English and swahili	ENGLISH LANGUAGE/FRENCH LANGUAGE
ENGLISH LANGUAGE/FRENCH LANGUAGE	English, Hindi and Fijian (2x)
German	Euskera and Spanish
http://www.jingpinke.com/	Federal Polytechnic Oke
Persian (Farsi)	http://xxhjx.szpt.edu.cn/
Spanish (5x)	Koforidua Technical University
Spanish / Basque	Mbeya University of Science and Technology
Tanzania	Persian (Farsi)
Vietnamese	Russian, English
ZAMBIA	Spanish (2x)
	Spanish / Basque (5x)
	TVTC
	Vietnamese
	Yabatech

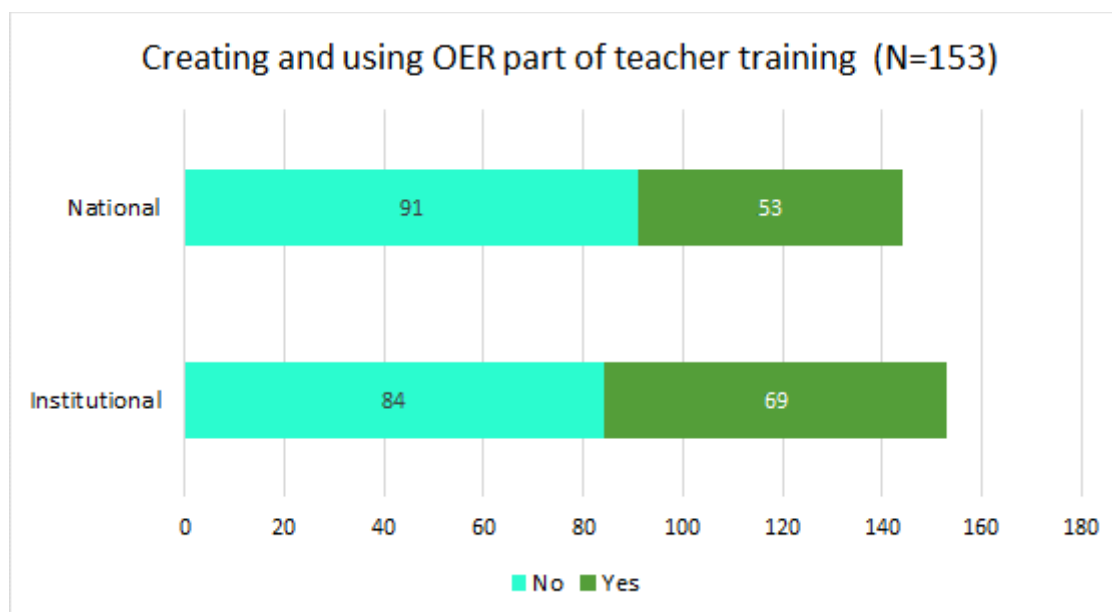
Results filtered to those respondents who have indicated in the previous question a national respectively institutional repository exist:

National (N=32)	Institutional (N=46)
English (21x)	Arabic language
ENGLISH & KISWAHILI	English (28x)
ENGLISH LANGUAGE/FRENCH LANGUAGE	ENGLISH & KISWAHILI
German	ENGLISH LANGUAGE/FRENCH LANGUAGE
http://www.jingpinke.com/	English, Hindi and Fijian (2x)
Spanish (4x)	Euskera and Spanish
Spanish / Basque	Federal Polytechnic Oko
Vietnamese	http://xxhxx.szpt.edu.cn/
ZAMBIA	Koforidua Technical University
	Mbeya University of Science and Technology
	Russian, English
	Spanish
	Spanish / Basque (4x)
	TVTC
	Vietnamese

3.3.5 Teacher training (S4)

Question: Is creating and using OER for TVET part of teacher training programs?

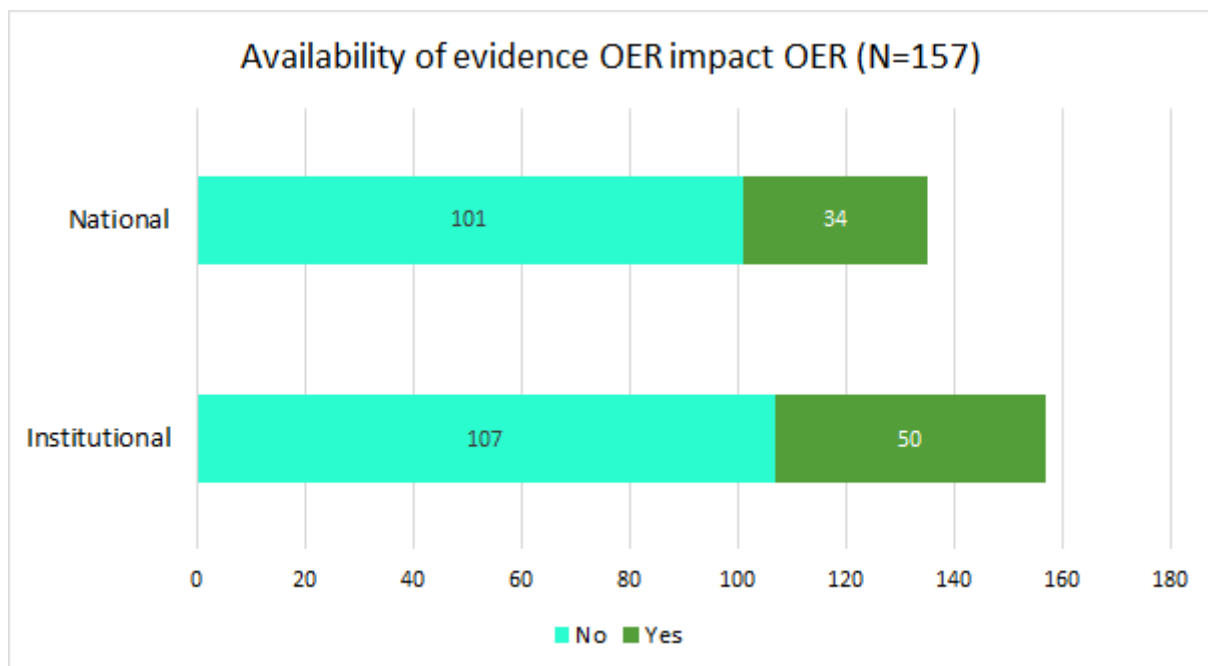
The results:



3.3.6 Evidence OER impact (S5)

Question: Are you aware of any evidence of OER impact (e.g. on quality, on costs, on accessibility) in TVET?

The results:



Question: If you have indicated in the previous questions that evidence of OER impact in TVET exists, please provide details of the evidence (e.g. URL(s) to research results)

The results:

As pointed out previously, there was until approximately 2014 a national policy to develop and use OER. For those practitioners willing (and institutionally approved) to use these resources, it was very effective. As the products developed it was even possible to disaggregate materials to allow for 'chunking' of learning. The current policy (at state and national levels) does not encourage OER practice.
CANT TRACE IT
Costs and quality are function of connectivity that is inconsistent at the US level. Moreover, paid OERs are expensive and dominated by a few vendors, which limits access for less wealthy institutions. Some examples include Pearson and others ADOBE.
Creative and self employment
HAS OCCASSIONED IMPROVEMENT IN LEARNING AND TEACHING TECHNIQUES
have no URL addresses but recently attended a regional workshop organised by COL and learnt of OER.
http://albertaoer.com/content/aboer-projects Jhangiani, R. S., Hendricks, C., Key, J., & Lalonde, C. (2016). Exploring faculty use of OER at BC post-secondary institutions Retrieved from http://wiki.ubc.ca/images/b/be/BCFacultyUseOfOER_final.pdf

http://www.maristak.com/proyecto-ethazi-ciclos-de-alto-rendimiento http://www.armeriaeskola.eus/es/blogs/3fasikoa-es/ethazi-mas-que-una-metodologia-basada-en-retos/ https://www.youtube.com/watch?v=sNLaEeOdR88 http://www.diariovasco.com/tolosa-goierri/201604/26/inmaculada-tolosaldea-implantan-metodologia-20160426001300-v.html http://www.ipyme.org/_layouts/15/IPYME/TextoAyudas.aspx?referencia=54420&usuario=lpymeNoVal http://www.lasalleberrozpe.eus/web/es/content/este-a%C3%B1o-tambi%C3%A9n-hemos-participado-y-ganado-en-don-bosco-sariak http://www.cebanc.com/es/sala-de-prensa/noticias/jon-cortes-lo-que-mas-fuerza-nos-da-es-cuando-un-alumno-que-ha-encontrado
http://www.out.ac.tz:8088/electronicbooks https://rightcopyright.eu/wp-content/uploads/2017/04/Teachers-and-modern-educational-practices.pdf https://rightcopyright.eu/wp-content/uploads/2017/04/15casesin15countries_infographics.pdf https://rightcopyright.eu/wp-content/uploads/2017/04/15casesin15countries_FinalReport.pdf https://www.nuffic.nl/en/publications
I am using OER to improve course contents for some courses that I am coordinating.
Impact of Tvet exists in the institutions but Not clearly documented
kttc.ac.ke KTTC Website
many
NA
Nil
On a personal levelA group of (10 trainers) was trained in cooperation with the European Foundation for e-learning training and given a tutor's certificate
Raise teacher performance in teaching
Research results shall be of low quality due to none availability of internet connectivity in most Institutions in the country.
Ten years of experience is the evidence. (I am the research.)
The evidence I refer to is rather a personal experience at the university where I am employed and work. There is not a repository at national or institutional levels, to my best knowledge, but there are OERs that are used at both levels among the students. And I have noticed that their impact is considerable.
The facilitating of e-learning by monkey survey ,government and instituions
THE IMPACT OF OER ARE EVIDENT ON THE STUDENTS WHO ARE EXCELLING WHEN THEY USE THE MATERIALS, IT ALSO minimises the cost of getting or acquiring learning materials.
There is no resources available and even if its available I don't know about it. I wish to develop OER if I would be given chance by the ministry of education. The resource are all outdated and students are taught old skills and knowledge instead of contemporary ways.
Tracer Studies
videos and presentations ... link not known
www.nbte.gov.ng

Colophon

Open Educational Resources in Technical and Vocational Education and Training

An overview of the state of affairs and harnessing the potentialities of Open Educational Resources (OER) for Technical and Vocational Education and Training (TVET)

Sub report Survey

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