Skills of the Future: Preparing Young People for an Uncertain Future

A qualitative study about the vision of Oxfam Novib's youth team and partner organizations on skills development of young people in the context of the future of work.

Master's programme Youth, Education and Society Pedagogy and International Development





Name Dayenne Bijsterbosch | 6192939

Date June 19, 2019

Course Master's Thesis | YES07

Course code 201600407

Supervisor UUDr. Carmen DamhuisSecond assessor UUDr. Rogier van 't RoodSupervisor internshipRobbert van de Waerdt

Internship organization Oxfam Novib | Youth Team

Abstract

Background. Young people need to be prepared for an uncertain future. They will need skills that they can use for the future of work. This study contributed to find the most valid conceptual framework for skills development in the context of Oxfam Novib. Method. For this study, semi-structured interviews are done with members of Oxfam Novib's youth team and employees of partner organizations in different countries that Oxfam Novib works with for two different projects. These countries include Bangladesh, Egypt, Ethiopia, Nigeria, Pakistan and Somalia. Results. Four skills are chosen to be the most important according to the youth team, those are: soft skills, social skills, entrepreneurial skills and designer skills. Furthermore, the vision of the youth team was more based on a more recent approach within Oxfam Novib, namely the goal for youth to be active citizens instead of increasing youth employment. The projects involved in this study are mostly aimed at youth employment, what led to a different vision on what skills are needed in the future and what skills are implemented now. **Discussion.** This study gave an insight in what skills youth in developing countries may need for the future of work. The outcome is a new formed skills framework that is based on the context of Oxfam Novib's projects. Discussed is, to use life skills instead of soft skills in further research since the skills that are chosen are useful for everyday life.

Keywords: Future of work, developing countries, young people, skills development, skills framework

Samenvatting

Achtergrond. De jeugd moet worden voorbereid op een onzekere toekomst. Zij hebben vaardigheden nodig die hen voorbereid op de toekomst van werk. Dit onderzoek heeft bijgedragen aan het vinden van een conceptueel raamwerk van vaardigheden in de context van Oxfam Novib. Methode. In dit onderzoek zijn semigestructureerde interviews uitgevoerd met leden van het jeugdteam binnen Oxfam Novib en collega's van partner organisaties in verschillende landen waarmee Oxfam Novib werkt. Deze landen zijn Bangladesh, Egypte, Ethiopië, Nigeria, Pakistan en Somalië. Resultaten. Er zijn vier vaardigheden die het belangrijkst zijn volgens het jeugdteam, dat zijn: zachte vaardigheden, sociale vaardigheden, entrepreneurship vaardigheden en ontwerp vaardigheden. Een ander resultaat was dat de visie van het jeugdteam meer gebaseerd is op een recentere aanpak, namelijk het doel om jeugd actieve burgers te maken in plaats van de focus op werkgelegenheid voor jeugd. De projecten die betrokken zijn in dit onderzoek richten zich echter meer op werkgelegenheid voor jeugd. wat ertoe heeft geleid dat de visie op wat voor vaardigheden de jeugd nodig heeft voor de toekomst, anders is dan de vaardigheden die al worden geïmplementeerd. Discussie. Dit onderzoek heeft inzicht geboden in welke vaardigheden jeugd in ontwikkelingslanden nodig kunnen hebben in de toekomst van werk. De uitkomst is een nieuw gevormd raamwerk van vaardigheden dat is gebaseerd op de context van Oxfam Novib. Een van de discussiepunten was om zachte vaardigheden, levensvaardigheden te noemen, omdat deze vaardigheden geschikt zijn voor het alledaagse leven.

Trefwoorden: Future of work, ontwikkelingslanden, jeugd, vaardigheden ontwikkeling, vaardigheden raamwerk

Skills of the future: Preparing young people for an uncertain future

Children and youth need to be prepared for an uncertain future as well in work, life and society more broadly (Tangirala, 2018). This study will center around the consequences for education and skills development in the context of the future of work. The future of work is a global debate on how the concept of work as we know it today is changing by global mega-trends such as automation and digitization, climate change and urbanization (Davies, Fidler, & Gorbis, 2011; Harari, 2017; Smith & Anderson, 2014a). The future of work will bring new challenges to the skills that are needed within this rapidly changing labor market. The change of the concept of work will have drastic consequences for a wide range of many people, - perhaps most importantly- young people (Lyngdoh, 2005), (non-governmental) organizations and education institutes (Linke, 2018). This is also the case for Oxfam. Oxfam, a large international development organization, is a non-governmental organization working closely with young people as leaders and active citizens. Oxfam Novib, the Dutch affiliate of Oxfam has an important focus on economic and social empowerment for young women and men. It is increasingly exploring the broader debate around the future of work, and the consequences for its work with young people (Linke, 2018).

There are more young people alive today than ever before in the history of the world. Almost 1.8 billion people are aged 10-24, that are one in four people globally (UNFPA, 2018). An estimate of 156 million youth in low and middle-income countries are still growing up in poverty (ILO, n.d.). Over the next decade, 1 billion young people will be available to enter the job market (Tangirala, 2018). Current global changes have a crucial impact on these young people and some trends are accelerating (Partos, 2018). Rapid developments in technology, digitization and automation can provide great opportunities for young people. However, robots and artificial intelligence might replace humans in more and more jobs and the uncertain future of work can fuel anxiety (Appleby, 2018; Autor, 2015). We have no idea what the job market will be like in 20 or 30 years, or what kind of skills people will need in 30 years.

According to the literature there are many approaches to skills development to prepare young people for an uncertain future. Sustainable development goal four for instance, states that the 21th century needs a shift to a lifelong learning process instead of short-term learning towards attaining a diploma (Arnett, Žukauskienė, & Sugimura, 2014; Calero, Maffioli, Mitnik, & Ripani, 2017; Harari, 2017; United Nations, n.d.). This is one way to approach the preparation for an uncertain future.

Another way to prepare for the future is skills development. There are several frameworks designed to approach the skills development to prepare young people (Thijs, Fisser, & Van der Hoeven, 2014). In this study, three frameworks will be highlighted. The first is the 21th century skills-framework, that is used in the Netherlands (see appendix A for complete framework). The 21th century skills are defined by the national expertise center curriculum development (SLO, 2019). These are (soft-)skills or competences that can be seen independently or coherent, but always in combination with course-specific knowledge. These eleven skills represent a new way of learning, living and working in the educational field. The skills are: critical thinking, creative thinking, problem solving, computational thinking, information skills, basic ICT skills, media knowledge, communication, collaboration, social and cultural skills and self-regulation. These skills are established through comparing different (international) frameworks on skills for the 21th century (Thijs et al., 2014). Using international frameworks is relevant for this study because the study will involve not only Dutch participants, but also some international participants. The participants will most likely have another view on what skills are needed in their society and so an international framework comparison is already contributing to that.

The second framework, that is based more on work related skills instead of education related skills like the SLO framework, is one of the World Economic Forum (World Economic Forum, 2016). This framework is developed to try and become specific in the changes that are still about to come and to prepare for the workforce of another 'Industrial Revolution' (see appendix B for complete framework). The report tries to understand the current and future impact of key changes on skill sets and employment level in different countries and industries. The skills in the framework are the core of various skills and abilities used across all industry sectors and job families. These skills are: content- and process skills, social skills, system skills, complex problem solving skills, resource management skills and technical skills. Although this framework is more based on work-related skills, the connection with educational skills development is easily made because changes in society have consequences for both education as the workforce. Education is there to develop and empower the individual. These individuals have certain learning needs, both general such as communication and listening as specific learning needs that are more based on what an individual wants to contribute to society, such as being a specialist in health or finance and so on, which falls under work-related skills (Maclean & Ordonez, 2007).

Last, an example of a framework is one developed by the European Union (Bacigalupo, Kampylis, Punie, & Van den Brande, 2016). This framework aims to establish a

bridge between the worlds of education and work. It is used for the design of curricula in non-formal learning contexts, formal education and the training sector (see appendix C for complete framework). The framework sees entrepreneurship as a transversal competence and has three different competence areas: ideas and opportunities, resources and into action. These areas explain the definition of entrepreneurship as the ability to turn ideas into action. Fifteen competences are stated as building blocks for entrepreneurship. Some examples of these competences are: creativity, spotting opportunities, ethical and sustainable thinking, working with others, motivation and perseverance and planning and management.

The three skills frameworks have overlap in several (soft-)skills. They are all focusing on work or education related skills and are based on research that shows that soft skills become more and more important in for instance a new industrial revolution (World Economic Forum, 2016). This study will contribute to find the most valid conceptual framework for skills development in the context of Oxfam Novib's youth team and their projects.

The underlying goal is to compare the vision of the youth team with the practice in the field. Thereby will be examined whether there are adjustments needed that make the practice fit better with the vision on skills that empower youth to be active citizens. Next to the practical relevance, the scientific relevance is aimed at skills for young people in developing countries. Existing research is mostly aimed at the Western countries and their skills development or not specifically focused on young people, such as the frameworks used in this study (see appendices A to C). Cross-cultural and cross-disciplinary research should be prioritized for the precise reason to recognize the full extent of human diversity and not only the Western reality (Henrich, Heine, & Norenzayan, 2010; Salager-Meyer, 2008). First, the concepts of empowering and soft skills are elaborated, since these concepts are present in this study.

Empowering

When young people gain mastery of their own life, it is called youth empowerment (Lakin & Mahoney, 2006). Oxfam Novib's youth team has youth active citizenship central in their vision of change and strategies to make this change reality. They believe that only when young people are empowered to claim their rights and work with the actors in all layers of society that shape their lives, they can achieve a truly transformational change that is also sustainable for the future. Their aim is to develop projects jointly with youth (Oxfam Novib Youth Team, n.d.).

Soft Skills

It is important that young people can adapt to the changing world by gaining skills that are transferable, also called soft skills, life skills, green skills, human skills or 21th century skills (Novy-Marx, 2017). These soft-skills can become even more valuable than they already are because machines and artificial intelligence will be performing working tasks that are currently performed by humans (Gratton, 2018; Smith & Anderson, 2014b). Soft skills are already highly researched and include for instance: empathy, creative thinking, collaboration, decision making, complex information processing and the four Cs –critical thinking, communication, collaboration and creativity – as higher cognitive skills (Bughin et al., 2018; Gratton, 2018; Harari, 2018; Thijs et al., 2014). In this study, the concept of soft skills is used.

A big proportion of the skills in the chosen frameworks, are soft skills. Though, what exactly soft skills are, differs in every context (Schulz, 2008). Humans are social beings and need soft skills to interact with others. Discussed is, if soft skills are indeed needed more in the future. According to Lynda Gratton (2018), millions of people across the world have to make a shift towards becoming better in these soft skills, although that is not easy because understanding how to develop soft skills is less known than understanding the development of 'hard skills' like analysis and decision-making. There are still different barriers to developing soft skills and these barriers have to be overcome to address soft skills into schools, our homes and our workplaces. The combination of learning hard skills and soft skills is possibly the most effective and efficient way and as a positive side effect, the lessons become more interesting and attractive (Lavy & Yadin, 2013; Schulz, 2008).

From this, the research question follows: Which set of skills do young people in developing countries with large youth populations learn that empowers them to be active citizens in an uncertain future? This research question has two elements: The first element, that will be answered through interviews with members from the youth team is: What skills will be contributing to the empowerment of young people in developing countries with large youth populations in an uncertain future? The other element, that will be answered by employees of partner organizations of Oxfam Novib, would be: To what extend do the existing opportunities on skills development already contribute to strengthening those skills in those countries?

Expected was that, for as well the general question as the first element of the research question that focused on what skills can contribute to the empowerment of young people, the participants from the youth team would choose most of the skills from the European Union skills framework (see appendix C). This framework focuses most on entrepreneurship as a competence and has opportunities, resources and into action as competence areas. This

expectation is based on literature that states that training in entrepreneurship could give poor owners or starters of micro or small enterprises opportunities to grow and get themselves out of poverty (Mensah & Benedict, 2009). Oxfam Novib and the youth team specifically approach poverty among other things by empowering (young) people to handle problems their selves and that is the reason they would choose most of the skills from the European Union framework. There are different scholars who demonstrated that entrepreneurship is necessary for a healthy economy (Nafukho, Machuma, & Muyia, 2010; Nijkamp, 2003). In Africa, several governments have developed entrepreneurial skills development programs. They do this to tackle the youth unemployment and ensure economic growth (Ahmed & Nwankwo, 2013). Oxfam Novib works in a lot of African countries, so this might be their approach too.

For the second element of the research question that focused on already existing opportunities was expected that the participants mentioned that the actual practice is not exactly like the project describes, and this would be an outcome of country-specific situations. Cultural aspects - a general set of values, beliefs and practices - are very important in projects to have sustainable outcomes. Since there were seven different countries involved in this project, cultural aspects were taken seriously (Dasen & Mishra, 2000; Tudge et al., 2013).

Method

Context

When focusing on what set of skills young people need, developing countries are mentioned. For this study, these countries were: Bangladesh, Egypt, Ethiopia, Nigeria, Pakistan and Somalia. These countries were derived from two different projects of the youth team, namely the Empower Youth for Work (EYW) and the Work in Progress (WiP) project. The projects are adapted to the countries where they work in, in their own way, but the projects are delivered to these countries with the same project name and objectives, developed by Oxfam Novib and partners.

Empower Youth for Work. The aim of the EYW project (2016-2021) is to improve economic and social empowerment for young women and men living in rural climate change affected areas (Empower Youth for Work, n.d.). The involving countries are: Bangladesh, Ethiopia, Indonesia and Pakistan. Every goal of the Empower Youth for Work project is adjusted to the country where it takes place, just as the strategy of the project. An example of this is: increasing the agency and skills of young people, giving internship opportunities and promote the role of youth as change agents in Pakistan. Skills that are present in the Empower Youth for Work description as learning goals are: entrepreneur skills (launching and running a business), technical skills (program using) and turning ideas into action.

Work in Progress. The WiP project (2016-2019) wants to create more employment for young women and men in Egypt, Nigeria and Somalia. Encouraging positive expectations for their future in their own countries. They are trying to reach these goals by developing three forms of interventions: supply of skilled youth, developing market demand and cultivating an enabling environment. These interventions provide an approach to tackle youth unemployment. Focusing on the supply side (skilled youth) and the demand side (developing the small and medium enterprises sector). Skills that are present in the WiP training modules as learning goals are: creative skills, social skills (presentation, teambuilding), business skills and digital skills (computer and internet use) (Oxfam Novib, n.d.).

Type of Study

The form of this study was exploration, because the researcher was searching for new data and facts and tried to connect this data to already existing knowledge. The data that was found in the literature was tested during the interviews. The study had a qualitative approach, because there was asked to the vision of the participants. These participants were professionals with their own experiences in life, personally and professionally and they all have their own interpretation of a situation (Baarda, De Goede, & Teunissen, 2009). It was important to be cultural sensitive, as most of the participants came from another culture than the researcher, namely the countries of Bangladesh, Egypt, Ethiopia, Nigeria, Pakistan and Somalia (Dasen & Mishra, 2000).

Participants

The sample of participants was chosen in cooperation with Oxfam Novib. This is done through a –non-probability- sampling method. Within this method, participants are chosen that help to answer the research question because they have a certain vision on what set of skills young people are already learning (Dudovskiy, 2019; Ritchie, Lewis, & Elam, 2003).

For the first element of the research question that focused on what skills are contributing to empower young people in developing countries, four members of the youth team, the team that the researcher was working in, were approached. Two of them are directly involved in one of the projects that are used in this study and the other two have a more general view on what happens in the youth team.

For the second element of the research question that focused on what is already existing regarding skills development in the countries, employees of the partner organizations were approached. There was one participant from almost every country office of the EYW and WiP projects, from the countries: Bangladesh, Ethiopia and Pakistan for EYW project and Egypt, Nigeria and Somalia from the WiP project. Only no employee from Indonesia was

interviewed, but instead of this, two extra participants from Egypt were interviewed. Six participants had a function of project manager and two of them had a function of project associate. There is no description of which person had what function, to ensure the anonymity of the participants.

Instrument

In-depth interviews. With the interviews, a topic list (see appendices D and E) was used and the interviews were recorded. The topic list was different for the youth team as for the partner organization employees. These topic lists consisted of key words that were used to answer the research question. The topics were derived from the research question, so that every concept in the research question was questioned, what contributes to the internal validity. The topics of the first interviews are: youth, empowering, skills and practice. Topics that were part of the interviews with the partner organization employees were: position, youth, future of work, skills and practice. Oral approval was asked for the recording, to contribute to the informed consent, this way it was possible for the researcher to transcribe and analyze the interviews afterwards.

The interviews for both the research question elements started with an explanation of the research content. For the first element, that focused on what skills are contributing to empowering young people in developing countries, the participants got an overview with three different conceptual frameworks (see appendices A to C). These frameworks already include skills that are chosen based on research. The participants were asked to highlight the four most important skills according to their vision on the future of work and their role in the youth team. The participants were asked to explain why they highlighted these skills and connect them with the vision of the youth team. According to these answers, the most important skills were enlightened and a conceptual framework was chosen.

The second element of the research question that focused on the already existing opportunities on skills development, was answered through interviewing employees of the partner organizations wherein the EYW and WiP projects are implemented. They were asked what they thought about the future of work and what skills the young people are learning through the training or project that they are involved in.

Procedure

The actual interviews were held with four members of the youth team in person in the Oxfam Novib office in The Hague, the Netherlands. These four participants were taken individually to conduct the interviews. Four participants of the partner organizations were approached through Skype, which is an often-used method to have communication with other

countries within Oxfam Novib. Two participants were interviewed through 'appear.in', which is an online tool to call. One of these interviews had to continue through WhatsApp voice-chat because the internet connection was too bad for appear.in. Two interviews were done through e-mail, further questioning was done through email also. What media is used, was depending on the preferences from the employees and their possibilities for connection.

The interviews with the youth team took in 45 to 60 minutes and the interviews with the employees of the partner organizations took 30 to 45 minutes. Two of the employees wanted to have certain questions of the interview before they conducted the interview. To them the topics: position, youth, future of work and skills and practice were sent so they could prepare themselves. The rest of the participants did not get any topic before the interview. They only got the general information on the research that was already sent to them beforehand.

The internal validity of the research is taken into account by working with a fixed interview schedule. Asking further only happened to get more clarification and deepening about the given answers, what also contributes to the reliability of the study. The names of the participants are herein kept anonymous to meet the ethical accountability (Baarda et al., 2009). As well the fixed topic list as the notes that are taken during the interview regarding the questions, are contributing to the reliability of this study. Thereby the questions were asked very specific, to increase the construct-validity of the study and to answer the research questions as clear as possible.

Analysis

Data analyzing in this study is done with Microsoft Word, because there was not a lot of data to analyze, namely twelve interviews. This is also the option that the Impact Measurement and Knowledge team, the team that conducts research within Oxfam Novib chooses when they do not have a lot of data or work with lay researchers in other countries. Data analyzing in this study is done on the basis of the analysis method of Baarda and colleagues (2009) and Boeije (2010). This is an idea generating approach, in other words an inductive approach (Baarda et al., 2009).

For working with Microsoft Word, the first phase of data analysis is transcribing the recordings and open coding (Baarda et al., 2009; Boeije, 2010). Open coding is a process of unravelling, test, compare, conceptualize and categorizing the data (Strauss & Corbin, 2007). Coding will be done by selecting pieces of the text and adding a fitting label to it, connecting to the topic. Also, a registration number is given to each label. This number was useful to find information of the original transcript section and participant in a later stadium. To guarantee

internal validity, the labels were formulated as close to the words of the participants. The second step of analyzing was reducing the labels into certain themes, named axial coding. The next step was interpreting the code-structure, selective coding. When there were more labels with the same name or synonyms, these were reduced to one theme. The fifth step was defining the core-labels (see appendix F for example of a core-tree for one of the topics) and eventually answering the research question (Baarda et al., 2009; Boeije, 2010).

Results

This section describes the most important results on the set of skills young people in developing countries with a large youth population learn, that empowers them to be active citizens in an uncertain future. First the definition of youth and the future of work are highlighted. This is done for the youth team as well as the partner organizations. Hereafter, the vision of the youth team members is described. Lastly the vision and experience of the country participants are stated. Core-labels are displayed in italic to show the outcome of the qualitative analysis. With some core-labels, a quotation is given between quotation marks, to state what the participants said concretely. Not a lot attention is payed to the number of participants that agree on statements, because the number of participants is small and therefore more focus is laid on the thematic areas and the perception of the participants that are extracted from the interview-data (Crouch & McKenzie, 2006).

Definitions

Youth according to youth team. The definition of youth is asked about because it is important to have all the concepts clear that are in the research question. This way a comparison with the definition of youth between the youth team and the partner organizations could be made. All four of the youth team participants were unanimous about the definition of youth. Age of youth is between 15 and 25, but thereby was mentioned that opinions about what youth is, are divided. In some countries youth is older than 30 years. Youth is a relative thing, it is depending on the social context of school, work, marriage and having a house.

Youth according to partner organizations. Almost all of the participants from the partner organizations gave a certain age-bracket to youth. Youth in general is between 14 to 29. An important note was that the African Union defines youth until 35. One of the participants gave youth the age bracket of 19 to 37. There were two participants that did not like to put an age bracket on youth or gave no age specifications on youth before working together with Oxfam. Some participants mentioned that the concept of youth may have some relaxation and that it may be a sensitive issue in some developing countries because sometimes the age is unknown in rural areas.

Future of work according youth team. The definition of the future of work according to members of the youth team is: The future of work has to do with global trends, the future of work is full of opportunities and developmental aid has to anticipate on that. The future of work is a change of the form of work. Also, the future of work is an all-purpose word was mentioned, the revolution of work is already there. When the participants were asked where the future of work will have the most influence, the future of work has the same developments but another influence in developing countries was mentioned:

"I think that, these are the same developments but with another influence in another place. If you look at, we are the consumer, so for us making the production process more efficient, makes the product cheaper so for us that is a positive effect. While in poor countries that might mean that a lot of people might become jobless because projects are being automated, processes. So, it is the same process, but it has another effect, you know?" (youth team member)

Future of work according partner organizations. When the participants of the partner organizations were asked about what came to their mind when they thought about the future of work, most of them answered that *people want flexible work*, meaning for instance that there will be more freelancing, online jobs, work that is home-based, more part-time jobs and that the type of work is changing. Furthermore, they said that *there will be more technology involved in the future of work*, that *a challenge is to become climate resilient* and also that *people become more purpose-driven*, especially young people start to reflect on the value of work after they feel secure and balanced with their job. They mentioned that *the future of work needs better training of young people. Innovation, communication, problem solving and adaptability* were skills that could help with preparing for the future. When they were asked, who will be most affected by the future of work, they mentioned that the developing countries were seen as the countries that become most affected. That *people with least skills are affected most, and that people with more specific skills were affected less:*

"So obviously, more and more technology means less jobs for people. But again, again I think people with the least skills would be affected more. People with more skills or, let me say, more advanced skills will be less affected. So, with the less advanced or no skills would be highly affected. But I am saying more specific skills. Because, because previously there was a time when, when the jobs were used, used to be like, when they would hire a

person, they would hire on the best of knowledge. But then, HR in different positive work, knew that you can increase the knowledge of people, right? And they focus on the skills, because a skill is something that is more practical. Knowing how to fix a computer, right? Theoretically knowing and actually knowing, there is a difference between them... If you have got the right attitude you can learn these skills and you can increase your knowledge but if you do not have the right skills, you cannot. So, what I was saying, the more specific skills would be more useful for the people." (Project manager, partner organization Oxfam)

As a side note, some countries mentioned that *the future of work is a relative thing, it is something that needs to be designed* by the future generations.

Youth Team

Skills of the future. The participants were shown the three different conceptual frameworks of the SLO, the World Economic Forum and the European Union (Bacigalupo et al., 2016; SLO, 2019; World Economic Forum, 2016). Most of them recognized that there were skills that were overlapping between the frameworks. They were asked to choose up until four of the most important skills that young people will need in the context of the future of work. An important note that was made is that the chosen skills are country-specific. Most of the skills that were chosen were from the World Economic Forum framework (World Economic Forum, 2016), for example: 'social skills', resource management skills, system skills, critical learning and thinking, process skills and cognitive abilities like creativity and active learning. Social and cultural skills, critical thinking, creative thinking and working together that originate from the framework of SLO, are almost all overlapping with the one from World Economic forum. Creativity also existed in the framework of the European Union. Other skills that were mentioned from that framework were: coping with ambiguity, uncertainty and risk, vision and learning through experience. Some skills were made up during the interview. A combination of soft and technical skills, working together, agency and trust, internship and trying out, critical questioning and individuality were involved. When the participants were given a chance to choose a fifth skill, because most of them were doubting which skill to choose as important, they mentioned process, vision or individuality as extra skill. Also, cognitive abilities, resource management, social skills and into action were preferred as extra skill. Except for individuality, these extra skills were coming from the existing frameworks. Individuality was made up by one of the participants, meaning exploring yourself, knowing who you are and being content with that. In Figure 1, the skills are made visible.

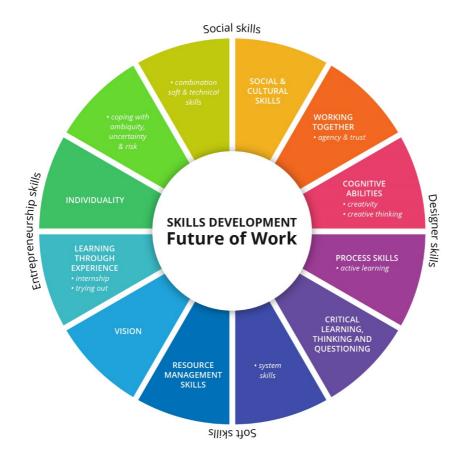


Figure 1. Skills for the future of work chosen by youth team of Oxfam Novib

The youth team members explained their choices for the skills referring to society. People *need certain skills to deal with and find their role in the complex society*. Society is becoming complex by decision-making processes; wherein also artificial intelligence plays a role. *The choices of artificial intelligence are not always clear* for people. Furthermore, working together and social skills were *seen as important for the self-development of young people*. Critical thinking was explained as *not taking in everything and keep developing*. This involved dealing with information and making own choices. *A vision gives direction, people are out of control without a vision*.

Partner Organizations

Skills training. Six of the eight participants mentioned that *soft skills were part of their training*. Skills like anger management, communication skills, basic English skills, problem-solving, presentation skills, selling skills, interacting and budgeting and saving, resilience, high-powered thinking, empathy and inclusiveness are learned in the trainings. One of them mentioned that employers look more at soft skills than technical skills. Employers need employees that are responsible and punctual, that have the everyday soft skills next to basic technical skills.

Another skill-set that was mentioned was *employability skills as part of the training*. For example: preparing an interview, writing a CV, building a team and skills that are used to create your own job are part of this skill-set.

Furthermore, *entrepreneurship skills in training* was mentioned as a skill-set. According to the participants it is important to know how to start a microbusiness, how to better understand the needs of the customer, how to develop impact and measure this effective, how to see the needs and design a business model. Entrepreneurial skills are part of trainings that are already given.

Besides entrepreneurship skills, *technical skills in training* was mentioned as a skill-set. Examples of technical skills that were given are: basic computer skills, soft engineering, computer literacy, coding, learning how a programmer mind works, website development and multimedia skills including photography and videography.

Also, designer skills through training connect to this. The trainings help to try set up a designer's mindset, learn graphic design and make motion graphics using mind-mapping tools and a design-thinking process. Two participants specifically mentioned that the skills that are learned are twofold, as well technical as soft skills are part of the training. Another two said that the skills that were needed in the market, were tailored in the program. There were two fixed elements and the rest came from assessments with earlier participants of the training or depending on the local context.

Chances. Almost every participant came up with own ideas as a chance to improve the training in their context. This may be interesting for the practical development of the projects. What chances they saw is asked next to what was already learnt in practice. All of them mentioned that there is always room for improvement of the project. There is always room to improve certain internal and external factors because these factors decide the effectiveness. Internal factors are the own experiences, expectations and perceptions on the training of the participants. External factors are not only the facilitators, but the training design, the training environment and the management and planning of the training for example. Other chances that were given are: integrate more skills for the environment of the entrepreneurs, closing the gaps in monitoring and supervision of the private sector, broaden the limited private sectors to link with, prevent the problems by partnering with the government and the selection process of the participants of the trainings could be improved. Furthermore, one participant mentioned that there definitely is a chance to broaden the Bits academy with for example: storytelling and marketing. Not only graphic design and motion graphics have to be part of the Bits academy, but there is more in the creative industry.

Another chance was seen in *more funding for a longer term of the training so that the training could be combined with more consultancy* and *the hours of the program could be more tailored*, so that it would fit on for instance child care facilities for women participants. A side note to all those chances is that some participants mentioned that *the project is already improving* by qualified instructors that do evaluations, stories and implementation, experiential learning.

Discussion

The general aim of this study was to gain an insight in the vision of the Oxfam Novib youth team and the vision of the partner organizations on skills of the future in developing countries and herewith fill a gap in literature. The underlying goal was to examine to what degree they accord with each other and if there are adjustments needed that make the practice fit better with the vision on skills that empower youth to be active citizens.

Since the form of this study was exploration, connecting new data with existing knowledge was the aim. As the outcome of this research, Figure 1 is developed. This framework puts together the skills that the youth team mentioned. The existing knowledge are the projects, their objectives, and the learnt skills in this case. The difference with the current vision is that employability skills and technical skills are implemented in the projects, but not in the vision of the youth team as skills that are important for the future of work in developing countries.

The general research question focused on what set of skills young people learn that empowers them to be active citizens in an uncertain future. Uncertain future in this question is meant as the uncertain future of work. Global trends can be seen as an important reason for the change of the concept of work. These global trends however, were not as present in the debate around the future of work in the partner organization countries as described in the literature (Davies, Fidler, & Gorbis, 2011; Harari, 2017; Smith & Anderson, 2014a). The change of work was mostly visible because of technology and climate change in the countries. These two trends can, according to Appleby (2018), Montt, Fraga and Harsdorf (2018), not be seen independently from the future of work. Though, other global trends such as urbanization are also present in the participating countries (Cohen, 2006; Hugo, 2003), but were not mentioned in the interviews. Especially in Africa, a lot of people from the rural areas migrate to the city. Urbanization is seen there as a solution for more jobs and economic growth, what the participants perhaps also behold, but that is not always the case. In some African countries, even a higher percentage of unemployment is the outcome, because the city cannot handle the increasing population (Sanchez-Reaza, Grover, & Lord, 2016). This means that

urbanization without solutions for job demand and urban services is causing new challenges that can be the subject of further research and practice.

Skills from the World Economic Forum framework are mentioned more by the youth team participants than skills from the European Union framework. This is not consistent with the expectation. The World Economic Forum framework focuses on on-the-job skills, what is probably more applicable in the context of the future of work than entrepreneurship skills as in the European Union framework. Skills that are mentioned by the participants and are in the World Economic Forum framework but not in the European Union framework are: active learning, process skills like active listening and critical thinking, social skills, system skills, resource management skills and technical skills (Bacigalupo et al., 2016; World Economic Forum, 2016). The new developed framework (see Figure 1) combines the three frameworks and shows a combination of mostly soft skills, social skills, designer skills and entrepreneurship skills. Most of them thus are retrieved from the World Economic Forum framework.

Skills of the future. The first research element focused on the ideas of the youth team on the skills that can contribute to the empowerment of young people in an uncertain future. In this study, soft skills were a big part of the frameworks used and also a big part of the skills for the future of work framework, that was developed (see Figure 1). The participants stated soft skills being the social and empathic skills that help people adapt to the changing world or society. Soft skills will be needed when the demand for technical skills will become less. Skills like agency and trust, communication skills and coordinating with others were mentioned as examples.

That soft skills are important, is also stated by Novy Marx (2017) and Sancassiani et al. (2015) who declared that soft skills are highly valued by employers and have shown to be correlating with improved outcomes in school, life and work. What can be questioned is: What makes soft skills soft? The skills that the participants mentioned as important for skills development, seem important for everyday life according to literature (O'Sullivan, 2019). Concluding that soft skills play an important role in everyday life, what makes them more life skills than soft skills. The concept of life skills can thereby be used in further research and practice, instead of the concept of soft skills.

The youth team participants all mentioned social and soft skills, entrepreneurship skills and designer skills, but no employability skills were mentioned, as well as few technical skills. Why few technical skills are mentioned can be questioned, since technical skills were implemented in the projects of EYW and WiP. The partner organizations mentioned technical

skills even before mentioning soft skills, these skills are still important nowadays and probably also in the future of developing countries (Husain, Mokthara, Ahmada, & Mustaphab, 2010; Lavy & Yadin, 2013; World Economic Forum, 2017). An explanation for mentioning few technical skills by the youth team might be that the youth team members were focusing on the soft skills rather than the technical skills because these were mostly in the frameworks. Another explanation is that the youth team already has a more extensive vision on what skills are important for the future due to another focus. Their focus during the development of the EYW and WiP projects was more on increasing youth employment. Their focus shifted towards active citizenship and therefore is their vision more based on that goal. The skills that are mentioned in Figure 1 as important by the youth team members therefore may be more aimed at active citizenship than increasing youth employment.

Skills development in practice. The second research element focused on opportunities in practice that already contribute to strengthening the skills. The skills that are implemented in the projects are: mostly soft skills, followed by employability skills, entrepreneurship skills, technical skills and last designer skills. So, the participants mentioned as well soft skills as technical skills.

Something that was not related to the expectation was that the practice was the same as the projects described. These projects were already made country-specific by the trainers and consist of the cultural aspects that are deemed important according to some studies (Dasen and Mishra, 2000; Tudge et al., 2013). The reason for this might be explained by the way Oxfam Novib develops their projects. In the start of the project, specific workshops are given. These workshops measure the needs of the countries they work with. Within these workshops, (young) people from the countries are brought together to make an overview from the needs of skills that are required. With this breeding ground, the projects are set up and objectives are formed. The project thereby leaves room for the partner organizations to make it context- and country-specific. Concluding that the project takes cultural aspects seriously.

Limitations

There are several limitations that might have influenced this study. The first important limitation is that this study has given results only based on the situation in the specific context of Oxfam Novib's youth team and the countries connected to the EYW and WiP project: Bangladesh, Egypt, Ethiopia, Nigeria, Pakistan and Somalia. Because the results are based on vision and practice in these particular contexts, it cannot be generalized to other countries.

The second limitation that might have influenced the study is that the researcher is not a native English speaker. The interviews with the youth team members were done in the

Dutch language. Also, transcribing and analyzing the interviews has been done in Dutch. The results are translated, but that might give some bias. In the first phase of analyzing, this is taken into consideration by labeling as close to the words of the participants as possible. Additionally, quotations are used in the results, to increase the trustworthiness of the results (Van Nes, Abma, Jonsson, & Deeg, 2010).

The third limitation is that the participants may have given socially desired answers, which will not contribute to giving a good representation of reality. This may be because partner organizations are getting funded by Oxfam. They are depending on this funding and might take this into consideration with giving the answers and try to think of chances to improve the project. An independent researcher, doing the same research but with no linkages with Oxfam may eventually prevent this in future research.

The last limitation is the poor quality of the technical equipment. With some of the interviews there was a bad internet connection. This led to repeating answers and maybe changing the initiate answer to a simpler or shorter one. Also, with one of the interviews the connection was so bad, that transcribing the recording took a long time and several words were not understood. This can also give bias in the results. This is taken into account by asking again when an answer was not well understood and also by making sure that eventual incomplete answers were revised through e-mail.

Implications

This study has led to a conceptual framework of skills that are seen important for the future by the youth team (Figure 1). This overview may be a grip for the youth team for future projects. They can then easily see what skills were already taught in their previous projects and how their vision was different from the practice. An implication is to focus future projects or programs on active citizenship and not only on youth employment, since this is the new focus of the youth team. This study can give an insight on that because these future projects can aim more at the soft skills, social skills, designer- and entrepreneurship skills needed in everyday life.

Another practical implication is to expand the existing projects into more working fields in the practice of the projects. There is a lot of focus on preparing people for a job in graphic design, web development or motion graphics in the WiP project for instance. The more people are educated towards such a job, the lower the demand for these jobs will be. Eventually broaden this project into other areas in the media, entertainment or information sector may provide new jobs.

Recommendations for future research. The conceptual frameworks that are used in this research are all developed in a Western country, but the study focuses on developing countries and the future skills that are needed there. Skills that are seen important in Western countries, may not (yet) be important in the developing countries. More research according skills frameworks in developing countries is thereby needed. This study may give a forward pass for these kind of researches, because of the content about skills development in developing countries.

Future research can aim on skills development in other countries than Bangladesh, Egypt, Ethiopia, Nigeria, Pakistan and Somalia or use other frameworks, for instance frameworks that are more based on research on working skills.

Another recommendation for future research is to expand interviews with observations as a method. This is recommended to decrease the chance of socially desired answers. Furthermore, expanding the knowledge about the future of work in general is a recommendation, for instance what role Oxfam Novib can play in that future. Nobody will ever know what the future of work may bring, but envisioning and discussing this may give a head start to meet the challenges it will present, rather than being ambushed by it (OECD, 2019a, 2019b).

References

- Ahmed, A., & Nwankwo, S. (2013). Entrepreneurship development in Africa: An overview. *World Journal of Entrepreneurship, Management and Sustainable Development*, 9, 82-86. doi:10.1108/WJEMSD-06-2013-0033
- Appleby, P. (2018). *Should we fear the future of work?* Retrieved from https://www.forbes.com/sites/kinetica/2018/04/19/should-we-fear-the-future-of-work/#2925acda43d1
- Arnett, J., Žukauskienė, R., & Sugimura, K. (2014). Adolescent mental health 3: The new life stage of emerging adulthood at ages 18–29 years: Implications for mental health. *The Lancet Mental Health*, 1, 569-576. doi:10.1016/S2215-0366(14)00080-7
- Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, *29*, 3-30. doi:10.1257/jep.29.3.3
- Baarda, D. B., De Goede, M. P. M., & Teunissen, J. (2009). *Basisboek Kwalitatief*Onderzoek: Handleiding voor het opzetten en uitvoeren van kwalitatief onderzoek.

 [The basis of qualitative research: Manual for setting up and conducting a qualitative research]. Groningen/Houten, The Netherlands: Noordhoff Uitgevers.
- Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The Entrepreneurship Competence framework*. Luxembourg: Publication Office of the European Union. doi:10.2791/593884
- Boeije, H. (2010). Analysis in qualitative research. London: Sage.
- Bughin, J., Hazan, E., Lund, S., Dahlstrom, P., Wiesinger, A., & Subramanian, A. (2018).

 Skill shift: Automation and the future of the workforce. New York: McKinsey & Company
- Calero, C., Maffioli, A., Mitnik, O., & Ripani, L. (2017). "Skills Development for Adults:

 Toward a Lifetime of Learning," IDB Publications (Book Chapters), in: Matías

- Busso & Julián Cristia & Diana Hincapié & Julián Messina & Laura Ripani (ed.), Learning Better: Public Policy for Skills Development, edition 1, chapter 10, pages 227-258.
- Cohen, B. (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in society*, *28*, 63-80. doi:10.1016/j.techsoc.2005.10.005
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science information*, *45*, 483-499. doi:10.1177/0539018406069584
- Davies, A., Fidler, D., & Gorbis, M. (2011). *Future work skills 2020*. Palo Alto, California: Institute for the Future for University of Phoenix Research Institute.
- Dasen, P. R., & Mishra, R. C. (2000). Cross-cultural views on human development in the third millennium. *International Journal of Behavioral Development*, *24*, 428-434. doi:10.1080/016502500750037973
- Dudovskiy, J. (2019). *Purposive Sampling*. Retrieved from https://research-methodology.net/sampling-in-primary-data-collection/purposive-sampling/
- Empower Youth for Work. (n.d.). *How*. Retrieved from https://www.empoweryouthforwork.org/how/
- Gratton, L. (2018). *The challenge of scaling soft skills*. Massachusetts: Massachusetts

 Institute of Technology. Retrieved from https://sloanreview.mit.edu/article/the-challenge-of-scaling-soft-skills/
- Harari, Y. N. (2017). Reboot for the AI revolution. *Nature*, *550*, 324-327. doi:10.1038/550324a

- Harari, Y. N. (2018). What kids need to learn to succeed in 2050. Retrieved from https://medium.com/s/youthnow/yuval-noah-harari-21-lessons-21st-century-what-kids-need-to-learn-now-to-succeed-in-2050-1b72a3fb4bcf
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466, 29. doi:10.1038/466029
- Hugo, G. (2003, June). *Urbanisation in Asia: An overview*. Paper prepared for Conference on African Migration in Comparative Perspective, Johannesburg, South Africa.
- Husain, M. Y., Mokthara, S. B., Ahmada, A. A., & Mustaphab, R. (2010). Importance of employability skills from employers' perspective. *Procedia Social and Behavioural Sciences*, 7, 430-438. doi:10.1016/j.sbspro.2010.10.059
- ILO. (n.d.). World Youth Report: Youth and the 2030 agenda for sustainable development.

 New York: United Nations Publications.
- Lakin, R., & Mahoney, A. (2006). Empowering youth to change their world: Identifying key components of a community service program to promote positive development.

 **Journal of School Psychology, 44, 513-531. doi:10.1016/j.jsp.2006.06.001
- Lavy, I., & Yadin, A. (2013). Soft skills an important key for employability in the "shift to a service driven economy" era. *International Journal of e-Education, e-Business, e-Management and e-Learning, 3*, 416-420. doi:10.7763/IJEEEE.2013.V3.270
- Linke, L. (2018). *The future of work Threat or opportunity?* Retrieved from Https://www.oxfamnovib.nl/kenniscentrum/blog-kenniscentrum/the-future-of-work-threat-or-opportunity
- Lyngdoh, B. W. B. (2005). Skills for work in the future: A youth perspective. *Prospects*, *3*, 311-316. doi:10.1007/s11125-005-4271-3

- Maclean, R., & Ordonez, V. (2007). Work, skills development for employability and education for sustainable development. *Educational Research for Policy and Practice*, 6, 123-140. doi:10.1007/s10671-007-9017-y
- Mensah, S. N. A., & Benedict, E. (2010). Entrepreneurship training and poverty alleviation: Empowering the poor in the Eastern Free State of South Africa. African Journal of *Economic and Management Studies, 1*, 138-163. doi:10.1108/20400701011073464
- Montt, G., Fraga, F., & Harsdorf, M. (2018). *The future of work in a changing natural environment: Climate change, degradation and sustainability.* Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms 644145.pdf
- Nafukho, F. M., Machuma A., & Muyia, H. (2010). Entrepreneurship and socioeconomic development in Africa: A reality or myth? *Journal of European Industrial Training*, *34*, 96-109. doi:10.1108/03090591011023961
- Nijkamp, P. (2003). Entrepreneurship in a modern network economy. *Regional Studies, 37*, 395-405, doi: 10.1080/0034340032000074424
- Novy-Marx, M. (2017). Skills at scale: Transferable skills in secondary and vocational education in Africa. Retrieved from https://www.afidep.org/download/MCF-Skills-at-Scale-March-2017.pdf
- OECD. (2019a). Envisioning the future of education and jobs: Trends, data and drawings.

 Retrieved from http://www.oecd.org/education/Envisioning-the-future-of-education-and-jobs.pdf
- OECD. (2019b). *Trends shaping education*. Paris: OECD publishing. doi:10.1787/trends edu-2019-en
- O'Sullivan, T. (2019). *Why there is nothing soft about soft skills*. Retrieved from https://www.skillsoft.com/blog/2019/01/why-there-is-nothing-soft-about-soft-skills/

- Oxfam Novib. (n.d.). Bits Academy Curricula. Available upon request.
- Oxfam Novib Youth Team. (n.d.). *Theory of Change and Learning Agenda*. Available upon request.
- Partos. (2018). *Adapt, counteract or transform: The future of Dutch development cooperation*.

 Retrieved from https://perspectivity.org/wp-content/uploads/2018/12/180411
 Exploring-the-future-of-Dutch-development-cooperation Partos final online.pdf
- Ritchie, J., Lewis, J., & Elam, G., (2003). *Designing and selecting samples*. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds.), Qualitative research practice: A guide for social science students and researchers (pp. 111-147). London: Sage.
- Sancassiani, F., Pintus, E., Holte, A., Paulus, P., Moro, M. F., Cossu, G., Angermeyer, M. C., Carte, M. G., & Lindert, J. (2015). Enhancing the emotional and social skills of the youth to promote their wellbeing and positive development: A systematic review of universal school-based randomized controlled trials. *Clinical Practice and Epidemiology in Mental Health*, 11, 31-40. doi:10.2174/1745017901511010021
- Sanchez-Reaza, J., Grover, R., & Lord, N. C. (2016). *Looking at urbanization through a jobs lens*. Retrieved from http://blogs.worldbank.org/jobs/looking-urbanization-through-jobs-lens
- Salager-Meyer, F. (2008). Scientific publishing in developing countries: Challenges for the future. *Journal of English for Academic Purposes*, 7, 121-132. doi:10.1016/j.jeap.2008.03.009
- Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *Journal of Language and Communication*, 2, 146-154. doi:10.1016/0006-3207(93)90452-7

- SLO. (2019). *Leerlijnen voor de 21e eeuwse vaardigheden* [Learning lines for the 21th century skills]. Retrieved from http://downloads.slo.nl/Documenten/
 SLO %282019%29 21e eeuwse vaardigheden kijkwijzers en leerlijnen.pdf
- Smith, A., & Anderson, J. (2014a). *Digital life in 2025: AI, robotics, and the future of jobs*.

 Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2014/08/Future-of-AI-Robotics-and-Jobs.pdf
- Smith, A., & Anderson, J. (2014b). *AI, robotic, and the future of jobs*. Washington: Pew Research Center
- Strauss, A. L., & Corbin, J. (2007). *Basics of qualitative research. Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Tangirala, N. (2018). *Opinion: Governance not just skills training is crucial to youth employment*. Retrieved from https://www.devex.com/news/opinion-governance-not-just-skills-training-is-crucial-to-youth-employment-93262
- Thijs, A., Fisser, P., & Van der Hoeven, M. (2014). 21e eeuwse vaardigheden in het curriculum van het funderend onderwijs [21th century skills in the curriculum of basic education]. Enschede: SLO.
- Tudge, J. R. H., Piccinini, C. A., Sperb, T. M., Odero-Wanga, D., Lopes, R. S., & Freitas, L.
 B. L. (2013). Vulnerable children? The heterogeneity of young children's experience in Kenya and Brazil. Springer: New York. doi:10.1007/978-1-4614-6780-9_9
- UNFPA. (2018). World population dashboard. Retrieved from https://www.unfpa.org/data/world-population-dashboard
- United Nations. (n.d.). Sustainable development goal 4: Ensure inclusive and equitable education and promote lifelong learning opportunities for all. Retrieved from https://sustainabledevelopment.un.org/sdg4

- Van Nes, F., Abma, T., Jonsson, H., & Deeg, D. (2010). Language difference in qualitative research: Is meaning lost in translation? *European Journal of Ageing*, 7, 313-316. doi:10.1007/s10433-010-0168-y
- World Economic Forum. (2016). *The future of jobs: Employment, skills and workforce*strategy for the fourth industrial revolution. Retrieved from

 http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf
- World economic forum (2017). The future of jobs and skills in Africa: Preparing the region for the fourth industrial revolution. Retrieved from http://www3.weforum.org/docs/WEF_EGW_FOJ_Africa.pdf

Acknowledgements

This study would not have been complete without the help of certain professionals. First I would like to thank the participants of this study, for giving their vision on skills development for the future of work and their time and effort to do an interview with me. I found it very interesting to talk to professionals from different countries and really liked their enthusiastic reactions on this study. Furthermore, I would like to thank Robbert van de Waerdt, my internship supervisor for his knowledge, involvement and critical perceptions on my research. Lastly, I would like to thank Carmen Damhuis, my thesis supervisor, for her good questions, feedback, quick communication and also involvement in this whole thesis procedure. You all made this study a personal success.

Kritisch denken Creatief denken Zelfregulering Probleen Oblossen Sociale & culturele, Vaardigheden Computationa thinking eeuwse vaardig-heden ^{Informatie} ICT basis Communiceren Media wijsheid Kennisnet

Appendix A. SLO skills-framework

Bron: SLO, 2019.

Appendix B. World Economic Forum skills-framework

Abilities

Basic Skills

Cross-functional Skills

Cognitive Abilities

- » Cognitive Flexibility
- » Creativity
- » Logical Reasoning

Physical Abilities

» Physical Strength

» Manual Dexterity and

- » Problem Sensitivity
- » Mathematical Reasoning
- » Visualization

Precision

Content Skills

- » Active Learning
- » Oral Expression
- » Reading Comprehension
- » Written Expression
- » ICT Literacy

Process Skills

- » Active Listening
- » Critical Thinking
- » Monitoring Self and Others

Social Skills

- » Coordinating with Others
- » Emotional Intelligence
- » Negotiation
- » Persuasion
- » Service Orientation
- » Training and Teaching Others

Systems Skills

- » Judgement and
- » Systems Analysis

Complex Problem Solving Skills

» Complex Problem Solving

Resource Management

- » Management of Financial Resources
- » Management of Material Resources
- » People Management
- » Time Management

- Decision-making

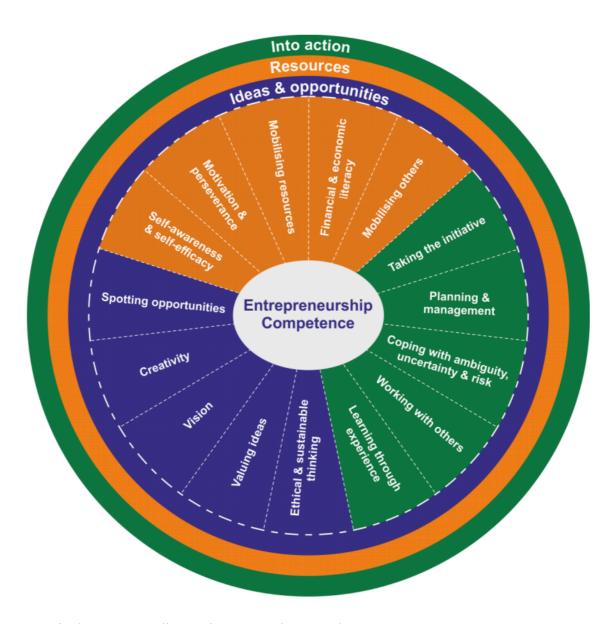
Technical Skills

- » Equipment Maintenance and Repair
- » Equipment Operation and Control
- » Programming
- » Quality Control
- » Technology and User Experience Design
- » Troubleshooting

Source: World Economic Forum, based on O*NET Content Model. Note: See Appendix A for further details.

Bron: World Economic Forum, 2016.

Appendix C. European Union skills-framework



Bron: Bacigalupo, Kampylis, Punie, & Van den Brande, 2016.

Appendix D. Topic list Youth Team

Topic	Vraag
Empowering	Empowering young people staat centraal in de visie en het werk van het youth team. 4. Wat is volgens jou de definitie van <i>empowering</i> (young people). Hoe draagt het youth team daaraan bij denk je? De definitie van empowering volgens het youth team is wanneer jongeren eigen invloed kunnen uitoefenen over hun eigen leven. Oxfam
	Novib's TOR youth team heeft empowering centraal staan in hun visie op verandering en strategieën
Future of Work	In de onderzoeksvraag is het concept <i>future of work</i> niet benoemd, maar wordt het een <i>uncertain future</i> genoemd, dit is gedaan om de vraag wat meer te generaliseren. 5. Wat is volgens jou de definitie/ betekenis van de <i>future of work</i> ? De definitie van de future of work in dit onderzoek is: Een globaal debat over hoe het concept van werk dat we hedendaags kennen aan het veranderen is door automatisering, robotisering, digitalisatie, klimaatverandering en verstedelijking. De FoW brengt nieuwe uitdagingen wat betreft skills met zich mee die nodig zijn in deze snel veranderende arbeidsmarkt.
Skills	6. Ik heb drie conceptuele raamwerken meegenomen die skills benoemen. Ik zou graag van jou willen horen wat jij de belangrijkste vier skills vindt in de context van de <i>future of work</i> . - Het eerste conceptuele raamwerk is ontwikkeld in Nederland en wordt voor een groot deel al gebruikt in het Nederlandse onderwijs. De skills die je ziet in dit raamwerk kunnen onafhankelijk van elkaar gezien worden, maar worden wel altijd in combinatie met vakspecifieke kennis gebruikt (zie figuur 1). - Het tweede conceptuele raamwerk is ontwikkeld door het World Economic Forum (2016) en is meer werk-gerelateerd. De koppeling met skills in het onderwijs kan gemaakt worden. Veranderingen in de maatschappij hebben consequenties voor zowel onderwijs als het werkleven (zie figuur 2). - Het derde conceptuele raamwerk is ontwikkeld door de Europese Unie (2016). Dit raamwerk wil een brug slaan tussen educatie en werk en ziet daarbij Entrepreneurship als een competentie. Dit raamwerk heeft betrekking op het opzetten van een bedrijfje. 7. Ik zou hierbij graag willen weten waarom je deze skills hebt gekozen. 8. Zou je deze skills kunnen koppelen aan het project waarbij je aangesloten bent? (Deze vraag is bedoeld voor de projectmanagers van WiP en EYW). 9. Zijn er nog skills die niet in de conceptuele raamwerken staan maar die je wel toe zou voegen? Voor welke andere skill zou je die dan omruilen?

	10. Indien gekozen voor <i>soft skills</i> : Waarom denk je dat soft skills belangrijk zijn voor de toekomst?
Praktijk (Partner- organisaties)	11. Hoe denk je dat de skills die je hebt gekozen in de praktijk in de projecten worden aangeleerd? Welke manieren worden hiervoor gebruikt denk je/weet je? (Voorbeeld: samenwerken door groepsopdrachten of kritisch denken door zelfreflectie te doen). 12. Denk je dat de daadwerkelijke uitvoering gelijk is aan de handleiding? 13. Op welke manier worden de handleidingen land-specifiek gemaakt volgens jou?

Appendix E. Topic list partner organizations

Topic	Vraag
Position	1. Can you tell me something about your position?
	What organization are you working in, what is their goal?
	In what way are you connected to Oxfam and the project (WiP or
	EYW).
	What topics are you working on?
Young people	2. What in your eyes is youth, can you define it?
Future of	In the research question the concept of future of work is not mentioned,
Work	but it is called an uncertain future. Though I want to ask you something about the FoW.
	3. What comes to your mind when you think about the future of work? Who will be most affected?
	The definition of the FoW in my research is: a global debate on how the concept of work as we know it today is changing by global mega-trends such as automation and digitization, climate change and urbanization. The future of work will bring new challenges to the skills that are needed within this rapidly changing labor market.
Skills and practice	4. What kind of skills are the young people learning through the training or course that your organization is implementing?
	5. In what way are these skills implemented? (for example: working together to define the social skills)
	6. Are the trainings implemented according to a certain manual that you 'got' from the project leader? → how is it set up/described?
	7. In what way is the practice other than the description do you think?
	8. In what way are the trainings made land-specific according to you?
	9. Do you see any chances to improve the quality of the trainings?
	- what skills are needed in society.

Appendix F. Example of a code-tree. On the base of topic 'Youth' in the interviews with the partner organization employees.

Topic: 2.1 Youth (respondent, page number)

A1 Youth in general between 14-29 years

(=dimension)

- youth is 15-29 (5,2)
- 5% project not 15-29 (5,2)
- More 40% youth in Bangladesh (6,2) (6,2)
- Bangladesh has 45 million young people (6,3)
- CODEC working with 15-29 year olds (6,2)
- Youth according level age (8,1)
- young people age 15-24 (9,2)
- we only focus average age 20 (9,2)
- in general advice working with 15-25 (9,2)
- young people 14-25 (10,1)
- not younger than 14 (10,1)

A2 African development defines youth until 35

(=dimension)

- youth is 18-35 years old (6,2)
- in Africa youth until 35 (9,2)
- Benin wanted to define youth until 40 (9,2)
- African development defines youth until 35 (9,2)
- No idea why until 35 (9,2)
- age till 35 since collaboration wip (11,2)
- in the office generally up to 35 (7,2)
- youth is within 19-37 (12,1)

A3 Youth concept may have relaxation, sometimes sensitive issue (=dimension)

- youth sensitive issue developing country (5,2)
- concept may have relaxation (5,2)
- sometimes unknown age rural people (5,2)
- until 40 is still fine (7,2)
- Youth in terms married or unmarried (8,1)

A4 Don't like putting age bracket on youth

(=dimension)

- we don't like to add age bracket (7,2)
- age bracket don't know (7.2)
- Don't like putting youth under certain number (7,2)
- no age specifications before oxfam (11,2)

A5 Participants mostly young people

(=dimension)

- participants programs mainly young (7,2)
- Generally speaking mostly young people (7,2)
- I would say young people involved (7,2)

A1 YOUTH IN GENERAL BETWEEN 14-29 YEARS (=corelabel)

A2 AFRICAN DEVELOPMENT (OFTEN) DEFINES YOUTH UNTIL 35 (=corelabel)

- A3 YOUTH CONCEPT MAY HAVE RELAXATION, SOMETIMES SENSITIVE ISSUE (=corelabel)
- A4 DON'T LIKE PUTTING AGE BRACKET ON YOUTH (=corelabel)
- A5 PARTICIPANTS MOSTLY YOUNG PEOPLE (=corelabel)