Partner Report Template

Partner Organization	MetropolisNet
drafted by	Marta Piwowarski

Table of Content

Table of Content

1. The changing labour market 3
1.1. Drawing on recent developments and technological changes to the world of work, can you describe the impact (or potential impact) of these changes? 3
1.2. Drawing on Country and EU research, can you describe what skills will be most needed in the future world of work? 4
2. Theoretical approaches 6
2.1. Identify and explore relevant theories and research evidence which can be used to inform project and tool development 6
3. Identifying and Measuring Soft skills for the Future Labour Market 9
3.1. Review of theories which underpin INFORM and identifying and measuring soft skill 9
4. Summary of desk research 11
5. Qualitative inquiry in the partner countries 12
5.1. Please summarise how you implemented the interviews and focus groups and give us feedback of the people involved 12
6. The changing world of Work, Stakeholder Experiences 14
6.1. Please describe your stakeholder experiences of automation in the workplace. Include Practitioner, Employer and Service User Feedback (Capturing any useful text/literature) 14
7. Identifying and Measuring Soft skills for the Future Labour Market 16
7.1. Please provide us with examples of effective tools and methods used to capture formal and non-formal learning 16
7.2. Please provide us with examples of effective tools and methods used to identify/measure soft skills 17
7.3. Please provide us a list of informal and non-formal activities as identified by your stakeholders 19
7.4. Briefly describe why your stakeholders think it important to identify and measure formal and non-formal learning 19
7.5. Please provide us with a list of soft skills used in informal and non-formal activities, as identified by your stakeholders 20
7.6. Briefly describe why your stakeholders think it important to identify and measure soft skills relevant to the workplace 20
8. Main Findings and Conclusions 21
8.1. Please describe your main finding and implications after the finalisation of the interviews / focus groups 21
9. Bibliography 23

1. The changing labour market

1.1. Drawing on recent developments and technological changes to the world of work, can you describe the impact (or potential impact) of these changes?

Note:

In this section we would like to know the impact of the changing labour market in terms of automation, digitalision and future opportunities, in your Country and at an EU Level.

1.Which areas of the labour market are showing the most significant changes in your Country and at EU level?

2. What predictions are being made on the impact of digitisation/automation?

3. Which industries are considered high risk (of loss) and how might this impact low skilled workers?

4. Are there any significant areas of growth in the labour market? Which areas?

5. Will there be significant disruption in terms of the job roles and tasks performed by individuals? If so, what are they?

This section should be between 1.5 – 2 A4 pages.

Please summarize your findings here…

Inevitably, the speed in which jobs have been replaced by machines, computers and technology has rapidly grown across most professional sectors in Germany between 2013 and 2016. Only the IT and health care sector have seen a slight decrease. It is predicated that 2.542.000 jobs will disappear in Germany by 2030, but that 2.768.00 new jobs will be created (Bundesinstitut für Berufsbildung 2018). Due to digitisation there has been an increase in new job roles as well as new tasks within existing jobs. Some of the new jobs include for example: Data Scientist, UX Designer, Social- Media Manager, Mechatronic Engineer. Based on an online survey of 607 companies in industry, insurance and banking, it is believed that by 2023 around 700,000 additional tech specialists will be needed. These include jobs such as complex data analysis, web development, conception and administration of network IT systems, smart hardware and robotics development.

With increased digitisation, new skills are needed in the future labour market, e.g. ability to use different software applications (simulation software, geoinformation systems), technology (3D printer), or experience and compliance with new rules legislations (drone license etc.). New technology also needs new workflows and procedures which leads to the creation of new job roles and tasks; these include e.g. quality and process management. There are also regional differences Germany in terms of job losses, e.g. in 2016 Berlin was affected by 15 percent and Saarland by 30 per cent.

Jobs with a high risk of being replaced by computers (50 - 60 % probability of being automated) include jobs in manufacturing, machine-facility controlling, maintenance professions as well as business-related services, transport and logistics, trade and commerce jobs and insurance services (Weber 2017; Stifterverband 2019). However, the finance sector, accounting and book-keeping will be affected the most. Regarding whole industries, it is argued that that employment in the manufacturing sector will be affected negatively, despite sales increases (Weber 2017). Sectors that are likely to benefit from digitisation are information, communication, and education (ibid). Jobs with relatively low risk of being replaced by digitisation include cultural services, medical and non-medical healthcare professions, IT and natural science professions. Teaching professions -which benefit from the need for further training- are also on the rise.

The already difficult labour market situation of low-qualified persons will worsen with digitation. Even with digital support, the demands of new jobs will have a rather big impact on low-skilled people. If structural changes emerge in jobs at the medium-skill level, new job opportunities could come up for low-skilled workers, resulting in individual, hard-to-automate tasks such as short cleaning or maintenance activities. Nevertheless, its seen as a big labour market policy measure to invest in training in the low-skill sector (Weber 2018). As digitisation requires complex activities, medium-skilled staff, a strong work force in Germany, will also be affected by changes in the labour market.

The major concern lies particularly in the sectoral and structural changes of future jobs rather than jobs losses as such. And although Germany seems to be economically well equipped for the changes ahead it also faces a few challenges; one major challenge is to bring small and medium-sized enterprises (SMEs) up to speed with digitisation. Digitalisation is still in the early stages and it will take a few years until it reaches its full potential. As most workers are employed by these companies there is a strong need for higher digital know-how, qualification and innovation capacity (Weber 2017; Stifterverband 2019). It will also be more difficult to organise and divide labour in production, as well as to develop new and innovative ideas in order to create new value offered by the changing labour market. Consequently, it's been predicted that lifelong learning and professional development are very important in order to keep up with the changing demands of the future labour market.

1.2. Drawing on Country and EU research, can you describe what skills will be most needed in the future world of work?

1. Having identified where job losses are likely to happen, what skills/upskilling will be most needed?

2. What steps are being taken in your Country to address the challenges and skills gap, particularly for low skilled workers and those of low educational attainment and disabilities? (National and Local initiatives, training etc.)

3. What recommendations are being made for low skilled workers, in the future labour market in your Country and/or at EU level?

This section should be approx. 1.5 - 2 A4 pages.

Please summarize your findings here…

The skills needed for future jobs include overarching digital skills as well as social skills. The demand for people with the ability to perform complex data analyses has by far the biggest share. Overall, the demand for people with technological skills rises to around 60% of the

German labour force, which also means an immense training challenge. Due to the changing nature of how we work (e.g. working in virtual teams across different countries, fast changing work environments and teams, flat hierarchies etc.), social skills are also becoming increasingly important. Skills (digital and social) that are valued most include the following (Stifterverband 2019):

- team-working, collaboration, empathy
- perseverance
- conceptual and creative thinking
- strong communication skills
- abstraction
- organisation and self-management and independent working style
- digital literacy and digital learning incl. routine handling of electronic data and basic understanding of data privacy
- continuous learning
- entrepreneurial thinking and self-initiative
- agile working

The greatest demand of upskilling is seen in digital learning, however. To close the skills gap in cross-disciplinary qualifications people need to receive continuous targeted further training at work. One-off “training courses” are not enough; instead systematic and regular upskilling in the workplace is necessary as part of lifelong learning.

The Federal Government has started several initiatives to address the changing skills required as a result of digitisation. These include among others:
Shaping the Course of Digitisation: this strategy prioritises the promotion of digital skills so that everyone can benefit from the opportunity’s digitisation offers. The government is investing in people’s digital skills by expanding the portfolio of services in all areas and by gearing the education system, the world of work and business to a digital knowledge-based society (Federal Ministry for Economic Affairs and Energy 2019).

The Digital Pact for Schools is equipping roughly 43,000 general education and vocational schools throughout the country with a modern digital infrastructure. It is also planned to introduce digital upskilling and further training measures for (vocational) schoolteachers and to support businesses and training institutions in teaching comprehensive digital skills to young people during their vocational training programme. This includes inter-company vocational training centers that offer further training in the field of digitisation (ibid).

The National Strategy for Continuing Training also strongly promotes digital skills development at school level. The Federation and the states have placed a priority on **“digitisation in teacher training”** with an additional funding of the **“Campaign to Improve the Quality of Teacher Training”.** Several measures have been launched by the federal states such as online-based learning platforms, strong IT infrastructures in schools, educational media strategies or approaches to teaching digital skills in the classroom (ibid).

The Government has also introduced measures to improve the opportunities of disadvantaged groups on the labour market. **The Act on Opportunities to Gain**

Qualifications and the **National Strategy for Continuing Training** make important contributions in this regard. Further training of (low-skilled) workers plays an important role to prepare workers for the changing needs of the labour market. In the future, workers whose jobs are affected by structural change, or who wish to pursue continuing vocational training in a profession affected by skilled labour shortages, will receive support in the form of full or partial coverage of the costs of the continuing training programme. Employers can also receive a wage subsidy for the time their workers spend in skills development programmes. Furthermore, stronger English language skills are also required for workplaces which are more digitalised (CEDEFOP 2017 cited in OECD 2018). To achieve this, opportunities to spend time abroad during education and training were improved. This includes the extension and deepening of foreign language competence according to its significance in each vocational qualification.

In order to facilitate the integration of immigrants in the labour market, validation and assessment of skills obtained on-the-job have been initiated in Germany, such as in the programme **"Recognition Finder"**. The pilot project Integration through **Qualification Programme; ValiKom** also helps refugees to recognise skills of formally unqualified workers. These programmes should be further developed to a general competence recognition system; that is, recognising both (modular) formal and non-formal qualifications and enabling workers to receive certificates when they complete a full professional qualification, comparable to certificates of formal education (Bertelsmann Stiftung, 2018). Overall, in comparison to other European OECD countries, skill validation and recognition is still weak in Germany (ibid).

OECD work suggests that government financial support for life-long learning should be targeted to adults with the lowest qualification or literacy level (OECD, 2003). While the impact of government funding on participation in adult education is not clear overall, when it comes to low-skilled public, spending can make the largest difference (ibid). Recent evidence confirms this (European Commission, Directorate General for Employment, Social Affairs and Inclusion, 2015). Indeed, low-income, low-education individuals have the lowest capacity to pay and may also be least aware of the benefits of education.

2. Theoretical approaches

2.1. Identify and explore relevant theories and research evidence which can be used to inform project and tool development

Note:

Review of formal and non-formal Learning

1. Please provide an up to date definition of formal and non-formal learning

2. What are the characteristics of formal and non-formal learning?

3. Are you aware of any methods and/or tools for testing/validating formal and non formal learning, if so, what are they? Why do you like them? How do they relate to FYC client group?

This section should be two to three pages of A4.

Please summarize your findings here…

Formal learning refers to a learning process that takes place in an organised and structured context (school, university, etc.) that is specifically designed for learning. As a rule, this leads to the acquisition of a qualification in the form of a diploma or certificate of competence. Formal learning includes general education, initial vocational training and higher education systems. Formal education in Germany includes primary, secondary and tertiary education, such as technical colleges and universities of cooperative education. Formal education is organised as courses that build on each other, are part of the National Qualifications

Framework and have a minimum duration of 6 months. Thus, for example, a training to become a certified specialist belongs to the field of formal education, although strictly speaking it is continuing education.

Non-formal education includes all organised teaching/learning settings that are not included in the National Qualifications Framework. A minimum level of organisation is provided, the event has a defined learning objective and a curriculum, as well as a defined beginning and end. These are therefore all educational offers that we commonly call continuing education. Typical examples of non-formal learning are in-house training, which companies use to improve the qualifications of their employees, structured online learning and courses organised by civil society for their members or the general public.

Characteristics of formal learning:

- Formal education is structured hierarchically
- It takes place in an education training establishment (e.g. school, adult training centre or in the workplace)
- It might include scheduled fees that are to be paid regularly
- It has a chronological grading system
- It is generally recognised in a qualification or a certificate
- It has a syllabus and subject-oriented. The syllabus must be covered within a specific time period
- The child/person is taught by the teachers / teaching staff

Characteristics of non-formal learning:

- Non-formal education is planned and takes place outside the main systems of general and vocational education
- Non-formal learning takes place in the workplace and as part of activities by organisations and groupings in civil society (such as youth organisations, trade unions and political parties). It can also be provided through organisations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations)
- The timetable and syllabus can be adjustable
- Non-formal learning' refers to learning the rough programme and does not necessarily lead to a certification
- Non-formal education has no age limit
- Fees or certificates may or may not be necessary
- It involves learning of professional skills

The EU defines the process of validation of informal and non-formal learning by four steps: identification, documentation, assessment and certification. Learning outcomes play a central role in the validation concept; they describe what a learner should know and be able to do

after completion of a learning activity. To qualify learning outcomes, they are assigned to defined vocational qualification levels such as e.g. the framework of the European Credit System for Vocational Education and Training (ECVET) (BIBB, 2018). This framework provides an orientation for the description and classification of different qualification levels across different national qualifications frameworks. The 2016 CEDEFOP validation makes the full range of a person's knowledge and experience visible, regardless of the context in which the learning originally took place (Zarifis, 2016).

In my professional career I came across several methods to test informal learning. These include self-assessment and structured interviews by managers or human resources. I like this method because it allows a person to reflect on what they have learned on the job, what they like and dislike about their work and, and how much they know and understand the company. However, when it comes to the structural interview, I do not think it's the best way for employers to find out about informal learning. This is mainly because not all employees will be completely honest in a structured interview with a manager. I think this should be done by an external person and recorded anonymously. For the FYC client group it could be useful in terms of helping them to identify their knowledge and skills, as well as and to find out what sort of work they would like to do in future.

Belbin and DISC test

I also came across the Belbin test and DISC test; these are behavioural / personality tests to identify different team roles. The Belbin test assesses how an individual behaves in a team environment. It is not a tool to measure learning as such but it gives an indication on people's personality and team roles; e.g. whether they are more introverted or extroverted, whether they like detail oriented, specialist or more overarching, general tasks, whether they are creative or dominant etc.

I dislike these tests because they put people too much into a box and limit them to 'one personality' only. I also doubt that people answer these questions honestly. Some people want to see themselves e.g. as a leader or as a creative mind and answer the questions accordingly to their expected outcome. These tests might give an indication on how people behave but they should not be taken too seriously. It also undermines the possibility for people to change.

Assessment for learning style inventory

During my research I came across the Learning Style Inventory (LSI) connected to David A. Kolb's model. Its newest 4.0 version identifies nine new learning styles. These are: initiating, experiencing, imagining, reflecting, analysing, thinking, deciding, acting, and balancing (Kolb, A., Kolb D. 2013). The aim of the LSI is to help people understand their own learning style from experience, particularly how it impacts on their communication, problem solving, working within a team, as well as how to handle conflicts and how to choose a career path. Furthermore, it helps individuals to be more flexible and effective in their learning (ibid).

On the contrary, a completely different Learning Styles Inventory is associated with a binary division of learning styles, developed by Richard Felder and Linda Silverman (Felder and Silverman 1988). In their model, learning styles are a balance between pairs of extremes such as: active/reflective, sensing/intuitive, verbal/visual, and sequential/global. Students

receive four scores describing these balances (ibid). Both assessment methods provide overviews and synopses for teachers and could also be applied for the FYC target group.

3. Identifying and Measuring Soft skills for the Future Labour Market

3.1. Review of theories which underpin INFORM and identifying and measuring soft skill

Note:

Thinking about the current theories which underpin the INFORM tool, please identify relevant and up to date research in these common areas.

*Explore and document the process of recognising worker-oriented skills. For example: as identified in O*NET, worker characteristics, requirement and experience requirements. Soft, digital and cognitive skills recognition*

1. Reviewing the theories which underpin the INFORM tool, do you think that they are still relevant? If so, why? If not, please provide up to date literature and research. (for example, does 'hardiness', described as inner strength that allows people to overcome stressful events (Kobasa 1979), need to be replaced with a more current theory such as resilience?)

2. Are there any relevant soft skills frameworks which you find useful and applicable to the target group? If so, why?

3. What existing tools and methods are present to identify, measure and/or recognise soft and cognitive skills (worker orientated skills) both nationally and in an EU context? (Technology, Initiatives, EU projects etc.)

This section should be between one and half to two pages of A4.

Please summarize your findings here…

The theories that underpin INFORM are still largely relevant. I didn't come across any new research in terms of informal learning. Emotional intelligence is still highly valued and a desired skill in the labour market. Due to the rapidly changing nature of work it is seen as a necessary ability to cope with work in fast-paced environments, as you typically find in the start-up and IT sector. It's still seen as crucial to be aware of your own emotions and those around you while being able to make informed decisions and interactions with others. As people work in many different teams and projects nowadays – often also in virtual teams – it's important to use emotional intelligence to be able to work together to complete projects and be effective teams.

One framework that may require rethinking concerns Hardiness theory. Hardiness theory has been criticised since the late 1980s (Funk 1992, Funk and Houston 1987, Ouellette 1993). Two primary focuses of these critiques related to the assumption that hardiness is expressed similarly in women and men, and that it lacks attention to how life events are perceived.

As noted by Lois A. Benishek & Frederick G. Lopez (1997):

> "Coping research has been criticized for failing to differentiate between the simple occurrence of life events (i.e. frequency) and their perceived impact (i.e. severity) on a given individual (Lazarus et al. 1985, Stone et al. 1989). It is the perceived severity of the event rather than the event itself that has the most significant impact on the person's quality of life.
> [..]
> Women and men also differ in how they perceive stressful life events. Relative to men, women overestimate the frequency of negative events and are more likely to view them as being more serious (Kessler et al. 1981). Women avoid threatening information (Stone and Neale 1984), are more self-critical, and are less rewarding of their accomplishments (Carver and Ganellan 1983)."
>
> Benishek and Lopez also note that men are more likely to cope with life stress by using cognitive or problem-focused strategies whereas women are more likely to use emotion-oriented coping strategies. Though this critique does not invalidate the relevance of hardiness theory to the project development, it should nonetheless be considered in defining the needs of the clients.

We may also suggest an inquiry into the use of mindfulness as a defined soft skill for building resilience to cope with stressful situations at the workplace. Studies have shown mindfulness training increases happiness, reduces stress and anxiety, and improves emotional intelligence, resilience, attention, decision-making and creativity (Arron 2012). A recent study found training corporate managers in mindfulness "can succeed in shifting psychological traits and personal values towards increasing levels of social consciousness, and therefore towards increasing likelihood of socially responsible behavior." (ibid)

One potentially relevant soft skill framework is that developed by the World Health Organization, as elaborated in a 1999 document titled "Partners in Life Skills Education" (WHO 1999). These conclusions from a UN inter-agency meeting were "designed to facilitate the practice and reinforcement of psychosocial skills in a culturally and developmentally appropriate way" (ibid). The WHO Department of Mental Health identified five key areas of "life skills":

- decision-making and problem-solving
- creative thinking and critical thinking
- communication and interpersonal skills
- self-awareness and empathy
- coping with emotions and coping with stress

A more recent framework includes:

<u>21st Century Skills and Competencies Included in the OECD Survey (2012):</u>

- creativity/innovation
- critical thinking
- problem solving
- decision making
- communication
- collaboration
- information literacy
- research and inquiry
- media literacy
- digital citizenship
- information and communications technology operations and concepts

- flexibility and adaptability
- initiative and self-direction
- productivity
- leadership and responsibility

National and regional tools:

The new Skills Agenda for Europe, adopted by the Commission on 10 June 2016, launched 10 actions to make the right training, skills and support available to people in the EU. Many of these actions address the need to identify, measure and/or recognise soft and cognitive skills. This includes, among others, the EU Skills Profile Tool for Third-Country Nationals, a review of the Recommendation on Key Competences for Lifelong Learning, a revision of the Europass framework, and more.

In Germany, the Federal Ministry of Education and Research has developed the **"German Qualifications Framework for Lifelong Learning".** The DQR is an instrument for classifying the qualifications of the German education system. On the one hand, it is intended to give orientation in the German education system and, on the other, to contribute to appropriate evaluation and comparability of German qualifications in Europe. The tool defines 8 levels of competencies corresponding to the European Qualifications Framework (EQF), while considering the specific traits of the German education system.

4. Summary of desk research

Note:

Please summarize your desk research here, making reference and connections to automation in the workplace and the changes required to the previous INFORM tool

This section should be between one and one and half 4. Pages of A4.

Please summarize your findings here…

Digitalisation is a current process that has a massive impact in the world of work, like previously experienced e.g. by the industrial revolution. It involves a process of interconnectedness between the virtual-digital and the physical world as well as machine learning and spans across company and national borders (Weber 2017). The expected result is to have more efficient, flexible and individual production (ibid). Almost all jobs will be affected by digitisation in some way or the other. Many of these jobs include financial, operational and administrative tasks, which will inevitably be affected by digitisation and new technology across different sectors. It's important to highlight that digitisation does not necessarily mean job loss in the German market, however. Rather, it is seen as a prediction to identify changes but also potential for the future job market. The fear of massive job losses is not justified; many studies show that as many new jobs will be created as old jobs will be lost. The two main concerns are to deal with new ways of organising and dividing labour in production including the division between humans and machines, and to be able to develop new ideas and create new value from the possibilities offered by digitisation and the use of large amounts of data (ibid).

In summary, the employment rate in Germany will not decline due to digitalisation but it will face major challenges in terms of the restructuring of jobs and getting SMEs ready for the digital future. Germany's labour market is well prepared in the field of engineering and sensor

technology but might fall behind in cloud technology and bid data, which is currently predominantly led by the US (Weber 2017). Digitalisation also has an influence on working culture and division of tasks. Thus, hierarchies are replaced by more flexible working structures, and demands and activities will change (ibid). Company surveys show that businesses see digitisation as an opportunity rather than a threat. They acknowledge however, that it comes with the need to offer further training and higher expenditure for data protection and cyber security (IAB/ZEW 2016). The need for more professional training is inevitable. Public policy should address these needs and offer funding and support for further training, especially for small companies. The acquisitions of formal training and informal learning must happen in parallel though. The situation of low-skilled people is likely to get worse with increased digitisation. Thus, labour market policy must also address this issue in order to help them integrate in the future labour market. Education and vocational training will become ever more important to deal with these demands. The German government is aware of the challenges that lie ahead and has started many new initiatives to address these. It invests in the upskilling of digital competencies from school to businesses as well as in professional development courses of teachers and trainers. It is argued that there is also a strong need to come up with new business models and to be flexible in order to stay competitive in future. In a digitalised world, social skills are as equally important as digital skills. These include communication, conceptual and creative thinking, ability to learn and problem solving. In conclusion, to face the challenges ahead the economy, labour market policy and education need to synthesise their efforts to respond to the growing demands of a digitalised world of work.

5. Qualitative inquiry in the partner countries

5.1. Please summarise how you implemented the interviews and focus groups and give us feedback of the people involved

Note:

Please describe the methods you used to gather the information (e.g. interviews or focus groups with guidance provider, employers and clients).

Please describe the range and types of interviewees/focus groups that you targeted (and how and why you made these choices). State how many you interviewed, the timeframe in which you operated and the method(s) that you interviewed (e.g. telephone, face-to-face, skype, a mix) and how many of each etc.

Please distinguish between guidance practitioners, employers and clients.

Please then go on to describe the characteristics of your groups; how and where you organised them, how you recruited; the characteristics of the attendees and summarize the approach you took with them in terms of your facilitation and recording of the events.

This section should be between one and one a half pages of A4.

Please summarize your findings here…

I interviewed 13 people altogether: three employers, six job seekers and four practitioners. All interviews took place between 15th of January and 3rd of February 2020. I conducted six face -to face interviews, 2 telephone interviews and 5 online interviews via a questionnaire. Each of the face-to-face and phone interviews was about half an hour long; I recorded the answers on a blank questionnaire.

Interviews with German natives were done in German. For that, I translated all the questions and supporting documents (such as the sign-in sheet and consent form) into German. Foreign interviewees were interviewed in English.

I used one-to-one face interviews with all employers. I made the decision to target people that work as managers or directors that are directly affected by digitisation. I also chose people who are involved in the recruitment process to find out how much they value soft skills and if this is an important part of the hiring process. In terms of their work experiences and sector, I approached people from different work areas including an SME consultancy firm, an environmental NGO and an education start-up. The stakeholders included male and female managers in an age range from 35 years to 65 years old. As a first step, I explained the project to them in detail and answered any questions they had. Then, I explained how the interview is going to work and what we do with the data. Once everything was clear, I asked for their written consent. Afterwards, I started with the interview questions; I recorded their answers on a blank interview sheet. Each interview took around 30 minutes.

In terms of the practitioners it was more difficult to organise interviews. As we do not work with them directly it was very difficult to get people to participate in a project that they do not know. Additionally, people in Germany are very concerned about data security which is also a big obstacle to get people to participate in a focus group session or even in an interview. Therefore, in the first instance, I contacted organisations that we have worked with in the past and who have direct access to practitioners and job seekers. These included different employment centres and job coaches in Berlin. I created a German version of the questionnaire based on the research template and explained the project and aim of the research in depth. Then, I asked the organisations to distribute the questionnaire amongst the practitioners and their clients. This approach resulted in three online questionnaires being filled in.

In another attempt to reach out to practitioners, I decided to introduce the project at an inhouse professional development course for job brokers. Given that it was a paid course and there was not any spare time, unfortunately I also could not do a focus group the participants. Instead, I presented the project to the group and asked for those interested to fill in the sign in sheet. As a next step, I sent out the questionnaire by email and asked them to fill it in at home. Six practitioners from different organisations signed up for the questionnaire, however only two sent it back in the end. I followed up with the rest of them several times but without any success. In summary, five questionnaires were filled in online. The practitioners consisted of female and male coaches who work in different institutions across Berlin. All of them had a lot of experience coaching a variety of job seekers including long-term unemployed with and without a formal training, German nationals as well as newly arrived refugees.

Reaching out to job seekers was equally difficult. Again, as we do not work with this target group directly it was very hard to find interviewees. Therefore, I targeted people I knew from a job coaching I did in the past. I also asked people from my personal network, who are

currently unemployed and have experiences with different coaching and unemployment agencies. In terms of the methods used, I did three one-to-one face interviews, 2 telephone interviews and two online interviews. The target group consisted of long-term job seekers, both low-skilled unemployed with and without a qualification, well qualified – or even over-qualified jobs seekers (one job seeker with a PhD), as well as German and foreign non-EU nationals. The job sector they previously worked in included: gardening and logistics, education and academic research, design engineering, administration, sales and the food industry.

I've evaluated all questionnaires and summarised their answers, see below.

6. The changing world of Work, Stakeholder Experiences

6.1. Please describe your stakeholder experiences of automation in the workplace. Include Practitioner, Employer and Service User Feedback (Capturing any useful text/literature)

Note:

What changes are your stakeholders experiencing? What concerns do they have? How are they currently addressing these concerns?

All employers understand automation in the workplace in terms of new electronic processes. Two of them see it as an improvement for better, more efficient and transparent processes. One stakeholder made the distinction between digitisation and automation; thus, digitisation is seen in terms of new electronic processes and automation in terms of human labour being replaced by machines. Two stakeholders work in areas where almost everything is digital, school material, print, modelling etc. The majority is not really concerned with digitisation; they see it as a benefit as it allows you to have bigger outreach, and to be more inclusive due to open source material and transparent processes. Digital processes are regarded as safer, faster and generally better as they are less prone to human error.

However, all employers also acknowledge the changes that come with digitisation. For example, in the environmental / climate sector social media plays a huge role for campaigning. Thus, companies need to invest a lot of money in social media and marketing etc. This also means however, that small organisations must compete with big players like Greenpeace and WWF that have more resources. Additionally, companies feel the double burden of having to synchronise online and offline processes.

The challenge they see is also to get all people on board and to not leave anyone behind. Employers see the need to offer additional training for their staff; this applies not only to working with new technology and software but also to understanding the importance of data protection and data safety. To achieve this, new structures must be put in place and some jobs need changing in terms of their tasks. One stakeholder looks at the changes as a welcome challenge as it allows you to learn new skills and to rise to the challenge.

Practitioners have a more mixed experience with digitisation. Whilst some have not experienced it much at all others say their work is highly influenced by it. Since job seekers are located all around Berlin, processes, data and information must be stored electronically to be easily and quickly available for consultation appointments. In addition, digital applications are used during consultation to show clients hands-on examples of how work will

function in 2020. The aim of this approach is also to take away fears regarding the use of digital applications. Most practitioners see digitisation as a positive progress; the digital revolution and “paper-less” office allows you to work and communicate much quicker and to be more effective. One practitioner has also noticed that companies focus much more on digitisation in their recruitment process. E. g. Deutsche Bahn is very noticeable here, where current job advertisements are posted on Facebook and Twitter. In the past sending a job application was quite complicated and slow, whereas today you can attach one single file to an e-mail and send it to many employers. Practitioners see the digital application process a lot more efficient and quicker. It also makes it easier for employers to process an application. One stakeholder pointed out however that the digital recruitment process does not favour everyone; recruiters do not see the person anymore, but they just judge you by the design of your CV. This is particularly difficult for refugees and non-native speakers who are not used to the German labour market. Moreover, older job seekers feel discriminated having to apply with a photo, as it already puts them in a disadvantaged position. Two job coaches commented that people feel overwhelmed by the current situation. Generally, it is very clear that job seekers cope with great fears and challenges ahead. Equally, practitioners feel that it is important to also provide coaches with further training to make them understand digital processes better. This includes e.g. training in using job portals such as LinkedIn and Xing.

Five out of six job seekers fear that automation will result in jobs being lost. They see digitisation as difficult because it requires people to manage work processes rather than having to produce something themselves. In addition, some feel that human interaction will become less important in future and that human labour will become redundant. That is for example the case in the field of research, where a lot of surveys nowadays are done online or by social media rather than face-to-face. On the other hand, in the field of logistics and bookkeeping, working with digital processes and computers is very common.

Two stakeholders feel that people tend to be more old-fashioned and that they like to work analogously. Two other jobs seekers said they do not feel well informed about digitisation. They hear that many jobs will disappear in the next few years, but they do not know how to prepare for it. In general, most job seekers do not know how to cope with the changing demands of the future job market. Three stakeholders acknowledge that digitisation makes work more efficient, eliminates human errors and makes some things easier. One stakeholder also sees the advantage of machine-to-machine working being more time efficient and better for the environment and sustainability. One job seeker who worked as a graphic designer in the past said that it is essential to be digital today; you must have a good online presence to compete with others. Companies hire new people to deal with new demands and come up with new strategies to be competitive. Jobs also change with new digital demands; e.g. graphic designers today are also expected to do UX design and to do front end and back end coding (in html). Thus, two jobs (coder and designer) are compressed into one.

All stakeholders agree that working with digitisation needs more human understanding and intervention. Most stakeholders also believe that we are not ready for digitisation; school and education systems are not prepared for it and people are not trained properly to use digital applications efficiently. They generally notice a lack of training. They believe that we are still very new to digitisation; there are many tools and processes people do not fully understand yet. Therefore, they think people are not yet ready to work with these tools efficiently. Additionally, the pace and wealth of information is a big challenge for job seekers.

Three stakeholders dislike how automation restricts them from having direct contact with customers. The think that the human and social side of work is being lost as more and more time is spent in front of the computer. Additionally, they fear that relying on one system / technology will also generate security gaps (e.g. when you do not have back-ups). Older job seekers struggle with digitisation the most. They also feel they lose out on younger people who grew up with digitisation. Others simply ignore or accept even though they do not like the changes that lie ahead.

When it comes to the hiring process, their experience is that social skills are nevertheless still very important. They are measured indirectly through conversations and questions aimed at finding out more about a person. However, they have not come across any methods and tools to measure these.

Literature or texts:

One practitioner mentioned job portals that deal explicitly with the topic of digitalisation such as e.g. https://www.t3n.de and one employer mentioned Mozilla web literacy, 21st century skills to measure digital skills, see https://learning.mozilla.org/en-US/web-literacy .

7. Identifying and Measuring Soft skills for the Future Labour Market

7.1. Please provide us with examples of effective tools and methods used to capture **formal and non-formal learning**

Note:

Examples collected through discussions with the participants of the Interviews/focus groups…how practitioners currently identify/test etc.

Please provide us with max. 5 examples. If you have more examples choose the ones which are most relevant to our project.

Name of tool or method	Short description (2-5 sentences max)	Link to source	Why this method is relevant (3-6 sentences)
Video tutorials about professions	Videos that explain job descriptions	Examples: Carpenter: https://www.youtube.com/watch?v=c5sVEu7lwUg Assistant nurse: https://www.youtube.com/watch?v=cv5eTxg8kgc	Quick and comprehensive overview of the profession or training. Creates a more relaxed consulting situation. Provides sustainable information. Integrates digital offers in consultation.
Regular e-mail correspondence	Regular communication	n/a	Reduces fear and resentment towards digital communication

with the job coach			Introduces to the use of digital communication as a matter of course
Competence cards for immigration counselling	The Competence Cards have been developed for immigrants' and their counsellors' needs. They are a set of cards which show different competencies (social skills, personal skills, technical skills, interests etc.)	https://www.bertelsmann-stiftung.de/en/our-projects/creating-corporate-cultures/careers-via-competences/project-news/immigration-counseling-for-adult-immigrants/	This method is particularly relevant for immigrants. The cards are available in different languages and they can be used flexible; they are very practically oriented, visualise competences and are compatible with further counselling agencies like the Job Centre and public employment agencies. This method increases job seekers self-confidence as the cards show a wide set of things a person knows (including through their hobbies and interests) rather than looking what they do not know or the skills they lack to find a job.
Working with a coach (1st meeting)	Regular sessions with a coach to identify informal learning	n/a	Job seekers build trust and are more likely to share their experiences and to talk more openly with their coach. It helps them to find out about their interests and informal learning.
Case studies	Stories that are used as teaching material to show job seekers a concept to real situations. Dependent on the goal cases can be fact-driven and deductive where there is a correct answer, or they can be context driven where multiple solutions.	n/a	It helps job seekers identify what the know through informal learning, they can relate to other people's experiences and feel more confident about their own situation. They reflect on their own situation and their own skills.

7.2. Please provide us with examples of effective tools and methods used to **identify/measure soft skills**

Note:

Examples collected through discussions with the participants of the Interviews/focus groups… how practitioners currently identify/test etc.

Please provide us with max. 5 examples. If you have more examples choose the ones which are most relevant to our project.

Name of tool or method	Short description (2-5 sentences max)	Link to source	Why this method is relevant (3-6 sentences)
Competence balancing	Questionnaire at the end of the 3-month course	Self-developed by a practitioner	It gives participants the opportunity to reflect on

			themselves and what they have learned
E. Profile Pass (mentioned by 2 participants)	It is a nationwide qualification tool in the context of vocational and further education. Individual knowledge and skills are documented in order to link them to current professional wishes and plans.	https://www.profilpass. de/	It offers a structured collection of materials for the reflection of professional and life experiences to help identify skills and career paths; it's accompanied by a professional consultancy with a coach / practitioner. Needs of the labour market and individual knowledge and skills are both taken into consideration. It helps with the preparation of (re-) entering the labour market, professional and personal (re)orientation and the planning of future learning projects
E. Talent Parkour	Aimed at pupils (7 -9th grade); there are various work samples and activities (of up to 25 stations) to help pupils gain an insight into the diversity of their professional opportunities and match these with their personal and professional interests and strengths	www.schule-plus.de/wp-content/uploads/2019/05/TaPa-Flyer_FINAL_April-2019.pdf	This method is useful for young pupils that can still decide on their career path; it helps them identify their interests, strengths & weaknesses
Skills- based profile mapping	Activity which begins with introspection and self-discovery wherein a person indicates their professional background and their aspirations – function, role and industry.	https://docplayer.net/ 16130045-Skills-based-profiling-and-matching-in-pes.html	Helps job seekers to discover opportunities based on their unique background, qualifications and previous experiences. It includes one-on-one interaction sessions with mentors and corporate leaders to help people connect to the relevant networks "Profiling" refers to the assessment performed by PES counsellors of an individual client' 'needs.
Competence Cards for immigration counselling	The Competence Cards have been developed for immigrants' and their counsellors' needs. They are a set of cards which show different competencies (social skills, personal skills, technical skills, interests etc.)	https://www.bertelsmann-stiftung.de/en/our-projects/creating-corporate-cultures/careers-via-competences/project-	This method is particularly relevant for immigrants. The cards are available in different languages and they can be used flexible; they are very practically oriented, visualise competences and are compatible with further counselling agencies like the

		news/immigration-counseling-for-adult-immigrants/	Job Centre and public employment agencies. This method increases job seekers self-confidence as the cards show a wide set of things a person knows (including through their hobbies and interests) rather than looking what they do not know or the skills they lack to find a job.

7.3. Please provide us a list of **informal and non-formal** activities as identified by your stakeholders

Guidance practitioner

1.) Almost everything in everyday situations	*4.) Hobbies (dancing events, camping)*
2.) Using digital job portals and consulting news	*5.) Volunteering, joining meet-ups*
3.) Shopping, dealing with salesperson and other customers	*6.) Offering help to your neighbours / sharing communal space with your neighbours (e.g. the garden)*

Employers

1.) Long-term volunteering	*4.) Listening to radio or watching TV*
2.) Using smart phones and apps, booking train or flight tickets	*5.) Long term travel (more than three months)*
3.) Taking part or organising conferences	*6.) Hobbies (being with other people, meet-up, sport etc.)*

Service Users

1.) Volunteering, e.g. working with the elderly	*4.) Looking for a new apartment and job hunting*
2.) Training courses	*5.) Hobbies: choir, sports, meet-ups, sewing*
3.) Renovation of basement ceiling	*6) Organising a wedding party*

7.4. Briefly describe why your stakeholders think it important to identify and measure **formal and non-formal** learning

The vast majority across all stakeholder (employers, practitioners, job seekers) believe that it important to measure non-formal learning as it makes up a huge part of our knowledge, but people are often unaware of it. For employers on the other hand, it is important to document and measure both, formal and informal knowledge. This gives an employer a balanced picture of what someone knows based on qualifications as well informal learning, which in turn is important for the hiring process as well as for internal promotions etc. Most stakeholders believe that measuring learning will increase peoples' confidence and motivation as well as raise their awareness of their own skills. This in return would help long-term unemployed to identify strategies and goals for future actions, to value themselves more and to increase their self-confidence and appreciation for their own skills. Most stakeholders said that job

experience is not everything; you learn daily and measuring informal learning would help o identify what you are good at. One stakeholder said informal learning should not be measured but rather it should be supported and promoted at work. Thus, employees should create situations where learning is encouraged.

7.5. Please provide us with a list of **soft skills** used in informal and non-formal activities, as identified by your stakeholders

Guidance practitioner

1.) Time-management (2x), organisation and structure, planning ahead	*4.) Politeness and intercultural skills*
2.) Communication (3x) and language skills (especially for migrant and foreign jobs seekers)	*5.) Appearance (clothing, personal gloaming) (Body), language and expression*
3.) Emotional intelligence (knowledge e.g. human nature / behaviour, accepting other people and other peoples' views and opinions, making compromises)	*6.) Resilience*

Employers

1.) Openness, self-awareness	*4.) Ability to learn*
2.) Teamwork, empathy 'being able to walk in someone else's shoes"	*5.) Communication*
3.) Tolerance	*6.) Problem-solving*

Service Users

1.) Communication & *listening skills, responding to people, reading their body language*	*4.) Tolerance, openness, patience*
2.) Dividing work into small steps to minimise the stress level, work preparation and division of work	*5.) Time-management, interest to learn new things*
3.) Empathy, reflection	*6.) Gaining self-confidence through the group (e.g. wouldn't dare singing alone but singing in the group is fine)*

Other soft skills stakeholders see as important in a digital labour market are respect, courtesy, good spelling, exchanges with colleagues, negotiation skills, patience, being able to transfer knowledge, as well as to change and to adapt to new things and different social norms. Additionally, it is important to think fast, be agile, dynamic and flexible. Two jobs seeker responded that in digital world you no longer need social skills or people as social human beings, but only good programmers. Others on the contrary said, that social skills are particularly important in a digital world and for society in general. A great programmer is no use for a company if he/she cannot communicate with anyone.

7.6. Briefly describe why your stakeholders think it important to identify and measure **soft skills** relevant to the workplace

Two stakeholders (one employer and one job seeker) said social skills are very important but they should not be assessed as this makes them less authentic. The majority however, thinks

that it is important to identify soft skills in order to make people aware of them. They also see social skills as important as technical skills. Measuring peoples' social skills would also strengthens their self-confidence and would help them to develop new skills. This would help job seekers to develop their future career perspectives better. Most stakeholders also think that it improves team feeling in the workplace, ensuring that there is a healthy and productive work environment. Additionally, it helps understand how people interact with each other given that it includes a human perspective at work. Most stakeholders say that work is always about teamwork in the end. On top of that, assessing soft skills helps to create a better picture of a company; this in return can be used for corporate branding. One stakeholder said that you spend most of your time outside formal education, but you still always learn something new. The more we rely on machines the more we need social sills, particularly communication.

8. Main Findings and Conclusions

8.1. Please describe your main finding and implications after the finalisation of the interviews / focus groups

Note:

In this final section we ask you to summarize your main findings and implications for the project.

What are the main findings? What are the main implications? Do you have solutions to propose?

Please feel free to provide us here with information which wasn't queried so far, but what you think is relevant for the further project development.

This section should be between one and one a half pages of A4.

Please summarize your findings here…

How people see digitalisation is very different; it largely depends on their position and their age. Older people tend to be wearier of digitisation. They feel a disadvantage to younger generations who grew up with digital processes and computers; thus, they see it as a challenge to get up to speed with the changes required. Others, mostly younger people in higher positions, see digitisation as an improvement. It allows for faster, safer, more transparent, inclusive and environmentally positive work structures. Most of these stakeholders do not know a world that is not digital, they are so used to everything being done via computers, smartphone and social media etc.

For employers, the main concern with digitisation is to provide continuous training to their staff and to make sure data safety and data security is in place. They take some digital competences for granted such as being able to work with Word and Excel. This is in a way the minimum requirement to work in any office environment. For job seekers who are more used to manual labour, dealing with simple technology such as Windows Office or machines is already a challenge. They also do not necessarily see it as an advancement and feel people prefer to work analogously.

When it comes to social skills all stakeholders agree that they are highly important. The majority values social skills more than technical skills. Apart from two stakeholders all think

that it is good to measure social skills and informal learning. Assessing these skills gives peoples higher value and increases their self-confidence and self-awareness. When it comes to daily situations where you learn the most, the majority see any kind of human interaction as highly valuable to learn new things. This includes e.g. interacting with your neighbours, sales staff in a shop or other people from a sports club, choir or volunteering. The skills that have been mentioned most are communication-related, including listening, reading body-language and personal appearance, time-management, organisation empathy and the ability to learn.

Based on the desk research and interviews with different target groups, I come to the conclusion that digitisation definitely has an impact on the labour market in Germany (as in other countries) but that it also offers new chances for people. What is needed is further and continuous training, both for people who are tech-savvy as well as for people who are not used to the digital world. When it comes to developing new skills, social skills are highly important. I have realised that not many people think about social skills when applying for jobs. In this respect, the FYC framework is very useful in order to make people aware of what they know outside of formal education. Defining a list of activities and social skills that are most needed in the future labour market puts them in a much better position. It would help to reflect on their skills in a different light. However, in Germany formal education and validation is still very important; employers and companies need to also be more open and give more importance to social and transferable skills, particularly with the demands of the new and fast changing labour market. This is important in order to be competitive and innovative in future.

9. Bibliography

Arron L. (2012), *Zen and the art of work – Managing workplace stress through mindfulness. The voice for clean capitalism*, corporate knights. Retrieved from https://www.corporateknights.com/channels/workplace/zen-and-the-art-of-work-13478801/, consulted in January 2020.

Bertelsmann Stiftung (ed.) (2018), *Formale Unterqualikation auf dem deutschen Arbeitsmarkt Neue Forschungsergebnisse und interdisziplinäre Einordnung*. Retrieved from https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/LL_Formale_Unterqualifikation_Langfassung.pdf, consulted on 29.02.2020.

Bundesinstitut für Berufsbildung (BIBB) (2018), *Wirtschaft 4.0 und die Folgen für Arbeitsmarkt und Ökonomie.* Retrieved from https://www.bibb.de/dokumente/pdf/qube_welle5_W4.0_final.pdf, consulted in January 2020.

Carver, C. and Ganellan, R. (1983), *Depression and components of punitiveness: high standards, self-criticism, and overgeneralization*. Journal of Abnormal Psychology, 92: 330´–337

CEDEFOP (2017), *European Skills and Jobs Survey* in OECD Publishing (2018), *Improving skills and their use in Germany, Economics Department Working Paper No. 156*. Retrieved from http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2018)64&docLanguage=En, consulted January 2020.

European Commission, Directorate General for Employment, Social Affairs and Inclusion (2015), *An in-depth analysis of adult learning policies and their effectiveness in Europe.* Retrieved from: https://op.europa.eu/en/publication-detail/-/publication/c8c38dc9-89d0-11e5-b8b7-01aa75ed71a1/language-en, consulted January 2020.

Federal Ministry for Economic Affairs and Energy (BMWi) (2019), *The National Reform Program*, Berlin. Retrieved from: https://www.bmwi.de/Redaktion/EN/Publikationen/national-reform-programme-2019.pdf?__blob=publicationFile&v=3, consulted January 2020.

Felder, Richard M.; Silverman, Linda K. (1988), *"Learning and teaching styles in engineering education" (PDF). Engineering Education.* Retrieved from: https://en.wikipedia.org/wiki/Learning_styles, consulted January 2020

Funk, S. C. (1992), *Hardiness: a review of theory and research*. Health Psychology, 11: 335–345.

Funk, S. C. and Houston, B. K. (1987), *A critical analysis of hardiness scales validity and utility.* Journal of Personality and Social Psychology, 53: 572–578.

Kolb A., Kolb D. (2013), *The Kolb learning style inventory – Version 4.0. A Comprehensive Guide to the Theory*, Psychometrics, Research on Validity and Educational Applications. Retrieved from: https://learningfromexperience.com/downloads/research-library/the-kolb-learning-style-inventory-4-0.pdf, consulted February 2020.

Lazarus, R. S., DeLongis, A., Folkman, S. and Gruen, R. (1985), *Stress and adaptational outcomes: the problem of confounded measures*. American Psychologist, 40: 770–779.

Lippman L., Ryberg R., Carney R., Moore K., (2015), Workforce Connections, Key "Soft Skills that foster youth workforce success: Toward a consensus across fields. Child Trends Publications. Retrieved from: https://www.childtrends.org/wp-content/uploads/2015/06/2015-24WFCSoftSkills1.pdf, consulted in January 2020.

Lois A. Benishek & Frederick G. Lopez (1997), *Critical evaluation of hardiness theory: Gender differences, perception of life events, and neuroticism, Work & Stress*, 11:1, 33-45, DOI: 10.1080/02678379708256820

OECD (2018),*OECD Economic Surveys*: Germany 2018, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-deu-2018-en, consulted in January 2020.

OECD Publishing (2018), *Improving skills and their use in Germany, Economics Department Working Paper No. 156*. Retrieved from: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2018)64&docLanguage=En, consulted January 2020.

OECD (2003), *Beyond Rhetoric: Adult Learning Policies and Practices*, OECD Publishing, Paris, Retrieved from: http://dx.doi.org/10.1787/9789264199446-en, consulted in January 2020.

Ouellette, S. C. (1993), *"Inquires into hardiness"*. In Handbook of Stress: Theoretical and Clinical Aspects, 2nd edn, Edited by: Goldberger, L. and Breznitz, S. 77–100. New York: The Free Press.

Reglin, Thomas, *Anerkennung und Anrechnung informellen und non-formalen Lernens. Systemfragen und Konsequenzen für die politische Umsetzung.* Forschungsinstitut betriebliche Bildung, Retrieved from: https://www.bibb.de/dokumente/pdf/stst_foko_120330_anerkennung_informellen_non_formales_lernen_reglin.pdf January 2020, consulted in January 2020.

Senatsverwaltung für Integration, Arbeit und Soziales (2017), *Digitale Kompetenzen in der Aus- und Weiterbildung von morgen Grundlagenpapier Juli 2017*. Retrieved from https://www.berlin.de/arbeit-4-punkt-0/, consulted January 2020.

Smith, Donna M.; Kolb, David A. (1996) [1986], *User's guide for the learning-style inventory: a manual for teachers and trainers*. Boston: McBer. OCLC 38505355. Retrieved from: https://en.wikipedia.org/wiki/Learning_styles, consulted January 2020.

Smith, Mark K. (1999, 2008): *'Informal learning', the encyclopaedia of informal education*. Retrieved from: http://infed.org/mobi/informal-learning-theory-practice-and-experience/ , consulted in January 2020.

Stifterverband für die Deutsche Wissenschaft e.V. (2019)*, Future Skills: Which skills are lacking in Germany – Discussion Paper.* Essen. Retrieved from: https://www.stifterverband.org/medien/which-skills-are-lacking-in-germany/demand, consulted in January 2020.

Stone, A. A., Helder, L. and Schneider, M. S. 1989. *"Coping with stressful events: coping dimensions and issues"*. In *Stressful Life Events: Theoretical and Methodological Issues*, Edited by: Miller, T. W. 182–210. Beverly Hills, CA: Sage Publications.

Weber, Enzo (2017), *Digitalising the economy: The future of employment and qualification in Germany in IAB Forum*. Retrieved from https://www.iab-forum.de/en/digitalising-the-economy-the-future-of-employment-and-qualification-in-germany/, consulted in January 2020.

World Health Organization (1999), *Partners in life skills education*. Retrieved from http://www.who.int/mental_health/media/en/30.pdf, consulted in January 2020.

Zarifis, G.: *Validierung in Europa in Deutsches Institut für Erwachsenenbildung Leibniz-Zentrum für Lebenslanges Lernen,* IV 2016 (pp. 23-26), Validierung. Retrieved from: https://www.die-bonn.de/zeitschrift/42016/validierung-01.pdf, consulted January 2020.