AgriNext

Module 4

Collaborative teacher

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OVERVIEW

Nowadays teachers mostly work alone, searching for sources, preparing lessons, workshops, assessments, as well as other pedagogical activities. Professional ethics of teachers emphasise collaboration. To be more creative, innovative, up to date with new research, methodology, digitalisation, determination of students' progress and challenges, and mentoring inexperienced teachers, teachers/trainers must collaborate on the school, local, regional, and international levels. The collaborative teacher works with various stakeholders from different professions to provide different sources and make their pedagogical activities more vital and real. The process of working together to achieve a common goal, and improving learner outcomes requires collaboration (planning, problem-solving, contributing to a respectful learning environment, …) Societal and technological development offers a scale of tools that could be used for collaboration, from different platforms, e-classrooms, social media and applications to reach innovative learning environments. Teachers collaborate in various communities within and across the school to create an open learning environment where teachers take collective responsibility for the progress of learners. Nowadays the job market is increasingly changing and because of this we need collaborative teachers, who must work with stakeholders from job markets especially with employers and owners (farmers in the case of multifunctional agriculture). The collaborative teacher works with teachers from other countries to improve knowledge, skills, attitudes, and ethical links to new research, societal and political problems (migrations, wars,), and climate changes.

LEARNING OBJECTIVES

Knowledge

The learner will be able to:

Interpret the goals and importance of networking and cross sector collaboration using different ways and tools for collaboration in the pedagogical process. To define strategy and act towards the successful collaboration with pedagogical staff, school management and agriculture sector (job market, researchers...) on the local, regional and international level.

Skills

Learners will be able to:

Establish and organise effective teamwork and learning communities for collaborating with clear goals among teachers, and other participants (employers, etc.) in the educational process. Use digital tools and AI to design collaborative projects and interdisciplinary teaching. Select and interact on international networking websites for teachers (ESEP, EPALE, Cedefop).

Attitudes Acquired

The learner will be able to:

Accept collaboration as a competence required in the new pedagogy and emphasise the collaboration without any prejudices, regardless of gender, race, religion...

Abbreviations/Acronyms

Cedefop - European Centre for the Development of Vocational Training

CMS - Collaborative Content Management System

CPI - Institute of the RS for Vocational Education and Training

DigComp - Digital Competence Framework for Citizens

ECVET - European Credit System for Vocational Education and Training (Slov. European Credit System for Vocational Education and Training.

EPALE - Electronic Platform for Adult Learning in Europe

EQF - The European Qualiticafions Framework

ESEP - European School Education Platform

ESoF - Entrepreneurial Skills of Farmers

FFS - Farm Field School

HRD - Human resource development

IFSA - International Farming System Association

OECD- Organisation for Economic Co-operation and Development

PBL - Practical work-based learning

PLC - Professional Learning Communitiy

RIEP - Regional Industry Education Partnerships

TALIS - Teaching and Learning International Survey

TVET - Technical and Vocational Education and Training

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNEVOC - The acronym UNEVOC is a combination of 'UNESCO' and 'vocational education'

VET - Vocational Education and Training

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1. INTRODUCTION

"A well-prepared teaching and training workforce that holds the right set of skills is vital for quality VET provision. Nonetheless, various countries struggle in bringing on board a sufficient number of skilled VET teachers and in encouraging employers to provide work-based learning opportunities supported by skilled trainers. There are many factors that contribute to such shortages." (Ref. 18).

More and more countries are recognising that quality Vocational Education and Training (VET) is essential for economic competitiveness. As unskilled jobs in OECD countries decline due to technological advancements and competition from lower-wage nations, the focus has shifted toward quality goods and services, requiring a highly skilled workforce. These skills, often taught through vocational programs, are essential for mid-level technical and trade roles alongside university-level qualifications. However, VET systems face challenges, often becoming disconnected from the rapidly evolving job market. To be effective, VET systems need strong links to the labour market, which requires two key approaches (Ref. 16):

- engaging employers and other stakeholders in shaping the skills needed, and
- developing information tools, like qualification frameworks and assessment systems, to evaluate and improve vocational programs.

Farmers are being forced to find new methods and revenue streams by the environmental, social, and economic crises. On their current farms, many farmers continue to implement the strategy of creating new revenue-generating (non-farming) business ventures. The shift from a productivity-based model of agriculture to a non-productivity, or multifunctional, model is also characterised by farmers' creation of new non-farming business ventures. Producing food is the primary responsibility of the farmer in productivity agriculture. In the context of non-productivity, or multifunctional agriculture, farmers adopt a more expansive role by offering supplementary goods and/or services that are more suited to the needs of the public (Ref. 23).

"The ESoF[1] project (Ref. 23) explored the area and identified three essential entrepreneurial skills, namely:

- *recognising and realising business opportunities,*
- *developing and evaluating a business strategy and*
- *networking and utilising contacts.*

These entrepreneurial skills were presented as so called "higher order skills". While professional and management skills are basic requirements for farmers, the three entrepreneurial skills were found to be essential to create and develop new business activities." (Ref. 22)

[1] Entrepreneurial Skills of Farmers

2. Collaborative Teacher Competences

"Vocational education and training institutions are expected to equip young people leaving vocational training with immediately useful skills. In order to keep up to date with new technologies, new working practices and future trends in professions, teachers need to be aware of what is going on in the labour market and the enterprises" (Ref. 27)

2.1 Introduction

Vocational teaching staff employed in various institutions and learning environments related to vocational education and training should be imparted with a **future-oriented competence of action**. A sense of **social and ecological responsibility** for co-shaping the workplace and society makes scientific reflection on the vocational and societal frameworks of skilled workers' learning and working extremely important. Scientific teaching now covers work, technology, and education from an integrated standpoint (Ref. 2).

In many countries, there is a great demand for teachers for TVET institutions and vocational training, but there is a significant gap in qualifications. The development of TVET teachers' competences[2] is closely related to the vocational teachers' study areas, which are divided according to the various competence areas and along the vocational disciplines (Ref. 26). TVET teachers require a "**double subject reference**," which refers to both the related vocational scientific field and the vocational area as topics. Both the TVET teacher profession (deciding on the content and methods of learning as typical teacher tasks) and TVET teacher training (developing occupational competence and specific teaching competence) depend on this dual reference.

TVET teacher tasks fall into two comprehensive competence areas:

The term "**personal and social competences**" refers to a TVET teacher's ability to learn about the TVET school as an organisation, the underlying system, and their own personal attitudes for the continuous improvement of their own abilities. With an emphasis on the vocational field and based on **competences in a vocational discipline**, vocational research, discipline, didactics, pedagogical, and management competences characterise the competencies for identification, preparation, and implementation of teaching (Ref. 2).

Due to technological progress and other changes (climatic, demographic...) the future is always difficult to predict. However, we can still talk about **future changes in VET**, both in educational institutions and training at the workplace.

In the handbook **COMPETENCE FRAMEWORK FOR VET PROFESSIONS** (Ref. 27) it is written

"In future there will be more:

- *recognition and emphasis on informal learning*
- ***collaboration within and between educational institutions and the world of work***
- ***networking of institutions with local and regional stakeholders***
- ***international perspectives in training***
- ***use of ICT and digital networks***
- *need for holistic perception*

[2] As UNESCO's designated centre for technical and vocational education and training (TVET), UNESCO-UNEVOC supports Member States in their efforts to strengthen and upgrade their TVET systems. TVET is focused on the acquisition of knowledge and skills for the world of work, and helps youth and adults develop the skills needed for employment, decent work and entrepreneurship while supporting inclusive and sustainable economic growth.

- *need for learner autonomy and self-directed learning*
- *competence requirements for pedagogical, networking and communication skills for teachers and trainers*
- *use of new media in education and training*
- ***interaction between education and the society***
- *organisational competence development*

In future there will be less:

- *emphasis on individual competence development*
- *formal training*
- *fixed and inflexible systems*
- *hierarchy*
- *classroom teaching*
- *differences and lower barriers between general, vocational and higher education and training "*

2.2 Networking

The newest activity that VET teachers have been involved in is networking. Institutions can no longer operate in a vacuum from their setting, given the growing demand to collaborate with the labour market and incorporate an international component into education. Furthermore, organisations must embrace **more collaborative ways in their operations** if they are to thrive in the face of all the pressures and changes.

Institutions must work together internally to become learning organizations. Consequently, **creating channels for knowledge and skill transfer** has become crucial. **New working methods** that challenge the traditional responsibilities of VET teachers, **like flexibility, modularisation, and interdisciplinary teaching**, have also been brought about by organisational changes. Working independently is no longer the responsibility of the VET teacher; instead, they must collaborate with other educators to organise, plan, and carry out instruction (Ref. 27).

The decentralisation trend in VET provision is creating new management responsibilities within the field. Simultaneously, the emphasis on situated learning and work process knowledge is transforming VET, shifting from traditional instruction towards managing learning processes and designing effective learning experiences. This evolution highlights the increasing importance of mentoring/coaching over direct instruction. These reforms in initial VET, which increasingly incorporate work process-related activities, are broadening the roles of VET professionals while converging with human resource development (HRD) responsibilities, with both groups now primarily focused on managing learning. However, these changes manifest differently across sectors and countries, largely influenced by labour market structures. In more regulated markets, such as Germany, changes in roles may evolve more slowly due to established regulations and clear distinctions between the roles of VET instructors and industrial trainers. Conversely, in deregulated markets like the UK, there may be a push towards specialisation as a cost-cutting measure. Moreover, in certain sectors, employer groups or social partners play a significant role in implementing occupational profiles (Ref. 1).

There are two types of networking that teachers engage in: **internal networking** and **external networking**. The ideas of learning organisations and shared expertise are connected to internal networking. In turn, communicating with professional networks, the workplace, and internationalization are all related to external networking (Ref. 27).

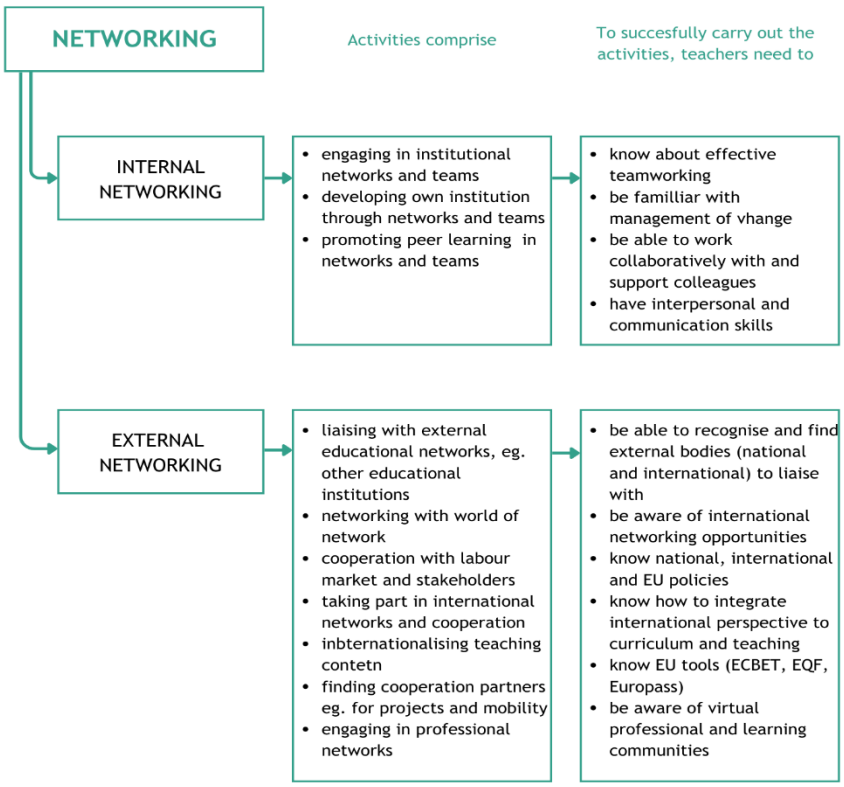

Figure1: Networking activities and required skills and knowledge of VET teachers (Ref. 27)

2.3 Digitalisation

In DigComp, digital competence involves the "confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It is defined as a combination of knowledge, skills and attitudes." (Ref. 9)

Figure 2: The DigComp framework (Ref. 9)

It's critical to creatively utilise one another's areas of expertise so that everyone is open to learning new things and growing. **Teachers will gain from collaborating with others to develop a commitment to a creative, collaborative culture via consistent practice**. According to researchers, these partnerships will be "a continuous process with evidence of new quality thinking and intentional changes in practice is embedded." By implementing meaningful collaboration, educators can enhance their problem-solving skills and advance their careers by benefiting from the expanded learning opportunities provided by their colleagues.

By **sharing their experiences** with others **through online technologies**, teachers can use digital resources to discuss ideas with leaders or colleagues. It is possible to serve audiences who are located far away by allowing them to contribute their varied experiences and viewpoints on a virtual platform. Teachers who are on different parts of the world can still communicate with one another if they have the correct resources. This gives people the chance to learn more about one another in addition to the course material. Consequently, areas for social cooperation are established that might not be feasible in a classroom setting.

For many years, teachers and professionals in various fields have used relatively basic technology like email and Microsoft Office (Word, Excel, and PowerPoint). Nonetheless, **certain new or developed technologies are particularly relevant to educators, and mastery of these tools is crucial for educators to succeed in the professional world (Ref. 23).**

2.3.1 Types of Collaboration Tools

Video Conferencing use for collaborating with each other when are out of the classroom. Additionally, we can have outside speakers visit our classes or hear from students or teachers in locations far apart from our own (such as Google Hangouts, Microsoft Teams, Zoom, Skype, etc.)

Digital Whiteboards and Cork Boards

It is imperative that participants brainstorm and record ideas prior to beginning the writing process. Cork boards and digital whiteboards provide a shared area where several participants can contribute, distributed team communication and project management in real time (such is Miro, Stormboard, Mural, FigJam, Padlet, Whiteboard Fox, etc.)

Collaborative Writing Applications

Using word processors' sophisticated features, collaborative writing apps let groups of people work together to generate a document. A revision history is maintained, and individual contributions are monitored. However, fresh ideas are reflected in real-time to all visitors to a newly created document (such as Google Docs, Office 365, Dropbox Paper, Write About, etc.)

Wikis – collaborative content management system (CMS)

On collaborative websites called wikis, people can write, gather, arrange, and edit material about a certain subject. Wikis facilitate collaboration by assisting groups of people with problem-solving, content creation and revision, preliminary research, and database development on pertinent subjects. Because Wikis have a history page listing the original contributors of the online article as well as those who have made edits and revisions over time, one of the main benefits of using Wikis is that users within a group can work on the Wiki article independently of one another. Examples of Wiki platforms: DokuWiki, MediaWiki, Wikispaces.com, Wikidot.com, Pbworks.com (Ref. 23).

Activity:
Read more about ***DIGITAL VET TRAINER IN AGRICULTURE IN DIGITAL FARMER HANDBOOK***, accessible on: https://www.researchgate.net/profile/Arzum-Isitan/publication/377770596_DIGITAL_VET_TRAINER_in_AGRICULTURE/links/65b795491e1ec12eff5ea3b4/DIGITAL-VET-TRAINER-in-AGRICULTURE.pdf

2.4 Teaching in agriculture sector

Since agriculture makes up a sizable amount of the rural landscape and land use, it is an essential component of rural communities. **Knowledge-intensive farming is becoming more and more necessary because of farmers' capacity to handle and react to the social, economic, and environmental challenges that come with living in rural areas.** Farmers must be able to implement new techniques in terms of money, resources, and markets, as well as technical and administrative skills. Here, learning plays a part in the development of rural communities as farming becomes an increasingly knowledge-based activity. According to research, learning facilitation consequently has the potential to help innovative rural development as well as adaptability to the multifaceted, complicated agricultural changes that are taking place in the rural landscape.

The sociocultural norm that views the farm as both a place of employment and a residence within a rural community fosters informal learning, emphasising the value of the formal and informal learning opportunities that farmers have access to. These opportunities also present chances to build education support networks, which are essential to the implementation of change.

In addition to the support and direction offered by the teachers, for example, students can build support networks among their peers, neighbours, and other members of the local community as well as those connected to the informal learning environment.

When it comes to education, agricultural colleges foster the best conditions for social learning because they allow students to engage with one another and share knowledge and ideas. **Farmers' and local knowledge are a key resource that farming communities may use to modify agricultural practices and encourage more resilient and sustainable agricultural pathways** Thus, through both formal and informal learning processes, young farmers acquire knowledge and information. One form of agricultural extension that fosters social learning in informal ways while farmers learn from more productive peers and from one other is in farmer discussion groups.

Therefore, developing farmers' professional skills and teaching them about the environmental effects of farming are essential if we want to ensure that sustainable farming methods are used in this quickly growing industry (Ref. 12).

Activity:

For more information of role of vocational education and training, identifying challenges, and successful approaches for the development of the right skills to enable the transition to sustainable and resilient EU Farming sector read: ***FARMING'S GOT TALENT*, Vocational Education and Training for Agriculture in Transition**, Event Report, Brussel, 2022 on: https://agriculture.ec.europa.eu/document/download/232c919f-7915-49d0-a5ec-745a0ed98422_en?filename=event-report-farmings-got-talent_en.pdf

3. Teachers Collaborating in School Environment

"As a professional community, teachers think collectively about important challenges. Constant collaboration and dialogue with peers and stakeholders help them learn and grow professionally. Together they reflect on how to improve and innovate teaching and schools. They provide each other with feedback and share a professional identity" (Ref. 14)

3.1 Introduction

Countries aim to provide education that equips individuals with the skills and knowledge needed to participate in society and join the workforce. Collaborative efforts across different sectors and professions can enhance these educational outcomes, making it logical from a public policy perspective to promote and expand such collaborations. As teaching faces rapid changes due to societal shifts like new legislation, digitalisation, and global crises such as the COVID-19 pandemic, the profession must evolve to prepare learners with essential 21st-century skills. The OECD highlights the importance of teachers working collectively, engaging in ongoing dialogue with peers and stakeholders to innovate and improve education. **Collaboration is increasingly recognised as crucial not only for enhancing educational outcomes but also for improving working conditions, supporting students, and addressing challenges that cannot be solved in isolation (Ref. 14).**

3.2 TALIS - Teaching and Learning International Survey

TALIS is an international survey that focuses on the learning environment and working conditions of teachers in schools. The aim of TALIS is to collect and analyse data related to teachers' teaching and professional development, as well as data on pedagogical, managerial and administrative issues related to the work of the head teacher (Ref. 21).

"Teachers have many opportunities to interact and work with their colleagues. Some can be formal, arising from job requirements for teachers in certain systems. But they can also be informal and voluntary interactions between colleagues that can be triggered by situations or challenges teachers collectively feel the need to address."

"Some collaborative activities imply a deeper level of co-operation among teachers and a high degree of interdependence among participants (Little, 1990). These are identified under TALIS as professional collaboration. Other forms of interaction include simple exchanges or co-ordination between teachers" (Ref. 17)

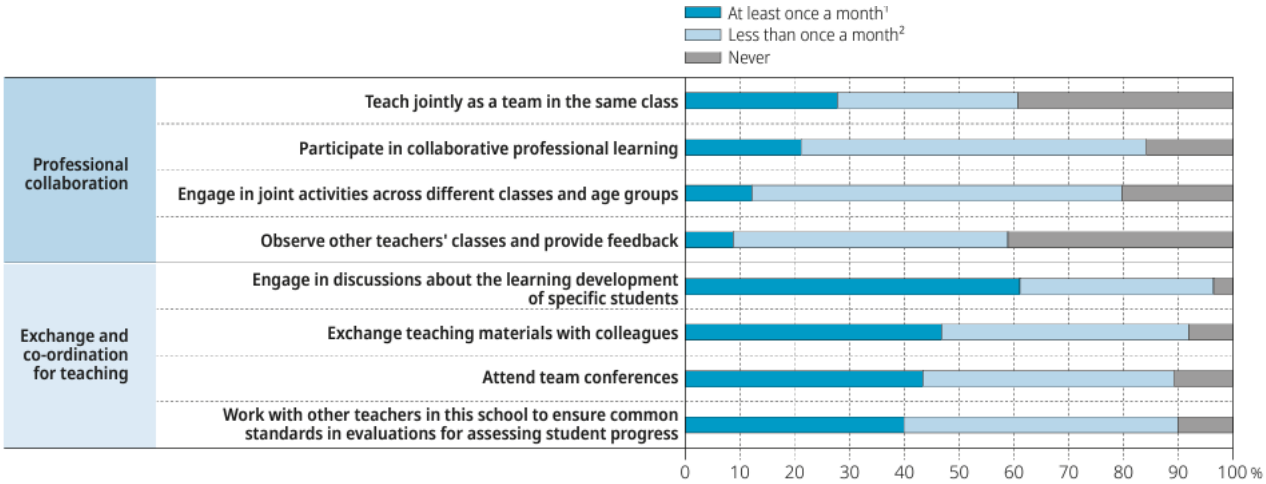

Figure 3: Teachers' collaboration with colleagues (Ref. 17).

Activity:

Watch the video: ***What role does teacher collaboration play in better teaching? TALIS, OECD*** on https://www.youtube.com/watch?v=BG7kMkNrzwY

3.3 Learning Community (PLC)

»Professional Learning Communities operate on the principle that students are not only taught but to ensure that they learn (Dufour, 2004). If teachers could shift emphasis from teaching to learning, then students would have to be the centre of attention. Gagnon & Collay (2001) state that the power of Professional Learning Communities rests in its potential to develop relationships, a commitment, and a positive attitude towards learning. « (Ref. 6)

A professional learning community is an organisational structure that encourages cooperation amongst all members in the required learning of all students. **This could be any kind of collaboration that helps students succeed, whether it be cross-curricular or subject-based.** Professional Learning Communities, according to researchers, use all necessary measures to address children's lack of learning. (Ref. 6)

A group of teachers that get together on a regular basis to discuss new subjects, exchange ideas, and work through issues is called a professional learning community. Teams choose the subjects and approaches they wish to study to expand their knowledge. A group may read and talk about books or articles. The team may be led by a facilitator or team leader while they study a new subject, sometimes with the aid of materials intended for professional development that walk the group through the subject matter. **Alternatively, a group may arrange for an expert to address the group or attend trainings or conferences in a related field. (Ref. 4)**

Figure 4: The Agroecology Learning Collective (TALC) (Ref. 25).

Activity:

1. Read more about using WhatsApp in the process of building a Professional Learning Community on **https://teachnet.ie/building-a-professional-learning-community-using-whatsapp/**
2. Watch the video: Professional Learning Communities: PLCs on **https://www.youtube.com/watch?v=r--tAcsrI48** (Teachings in Education)

3.4 Cross-sector collaboration

"Bryson, Crosby and Stone (2006) define cross-sector collaborations as:

…the linking or sharing of information, resources, activities, and capabilities by organisations in two or more sectors to achieve jointly an outcome that could not be easily achieved by organisations in one sector separately" (Ref. 14)

Teachers and professionals from other organisations may work together. In these kinds of partnerships, the teachers take on the role of the collaborator. The school becomes the collaborating entity when interprofessional collaboration occurs between teachers and other members of stakeholder groups in the context of organisational partnerships. Agreements with differing levels of formality may restrict the collaboration's forms and goals. **Interprofessional collaboration between two or more professionals exists regardless of the level of formality and organisational structure of these partnerships.**

Teachers work collaboratively with other teachers as well as with other professionals in diverse circumstances, and this practice may be advantageous to them. While it is arguable that school administrators and policy makers should concentrate primarily on promoting deeper forms of professional collaboration among teachers, further research into the traits of effective cross-sector and interprofessional collaboration development and implementation that could fortify the teaching profession is necessary.

It may be possible to relieve teachers of some of the responsibilities that other professions are better suited to do in the classroom through interprofessional collaboration. Furthermore, there may be less stress on teachers from feeling that they are the only ones accountable for their child's academic success if other stakeholders participate in the empowerment of students. **The likelihood of improving the teaching profession and lowering stress is high if teachers are free to concentrate on teaching and teaching-related responsibilities.**

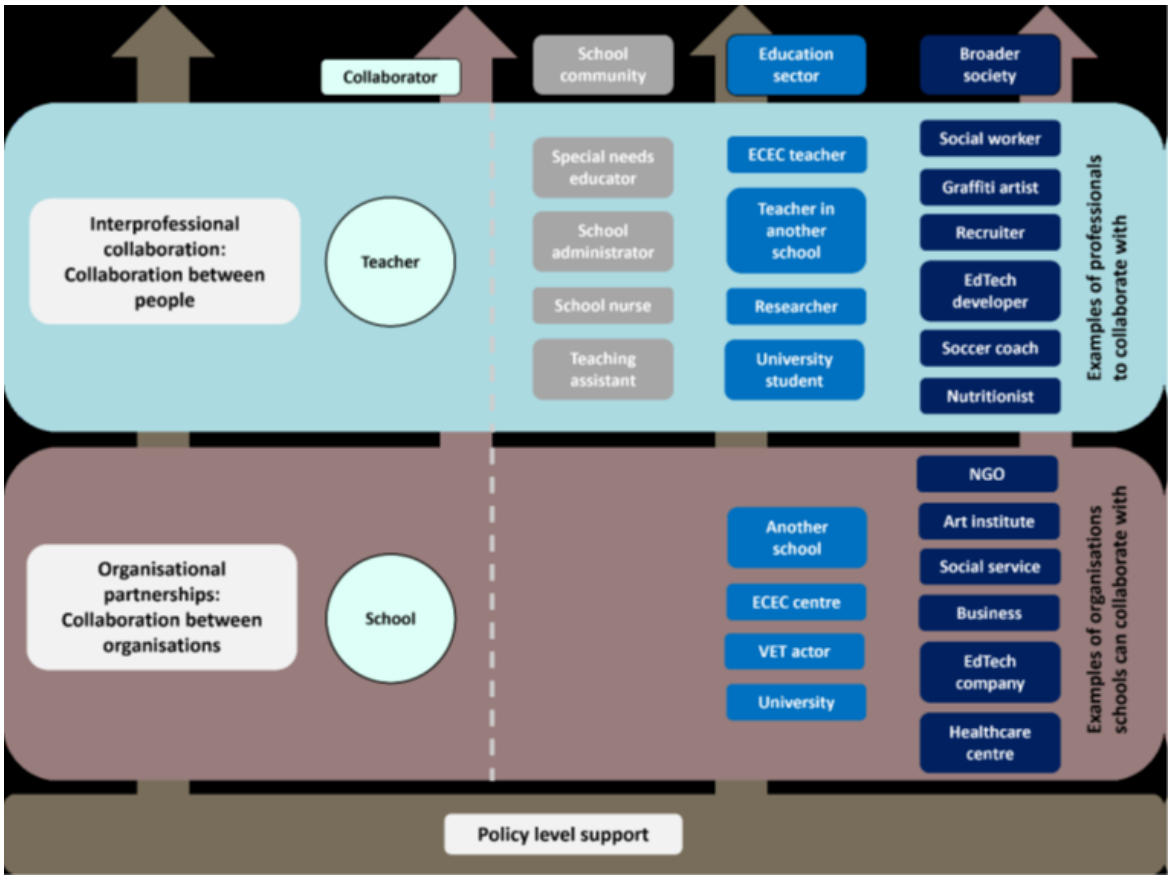

Figure 5: Cross-sector and interprofessional collaboration for teachers and schools (Ref. 14). [3]

Exploring cross-sector collaboration is especially crucial since more collaboration in the teaching profession may be important in the future. Four possible future scenarios for education have been identified in the OECD's forward-looking work (Ref. 18). In each of the scenarios, teachers will work in environments that are different from what they are currently. **One such environment may be a significant shift in the way experts from different industries collaborate and divide tasks.**

Issues that the education sector and teachers alone are unable to resolve must be resolved through cooperative efforts. Teachers can leverage their knowledge in education and teaching to support other professionals in outcome-oriented collaborations that aim to empower students and improve academic achievements.

Collaborative efforts aimed at improving these results are desirable, if governments ensure that education equips as many citizens as possible to enter the labour field and acquire the skills and knowledge needed to engage meaningfully in society. In the public interest, it makes sense to initiate and/or strengthen collaborative initiatives if cross-sector or interprofessional collaboration between various sectors and experts results in better outcomes than the absence of collaboration.

[3] Note: The author acknowledges the input from Hal A. Lawson in the creation of this figure. EdTech stands for "educational technology", NGO stands for "non-governmental organisation", ECEC stands for "early childhood education and care", VET stands for "vocational education and training". The examples of professionals and organisations should be considered as examples, not recommended actors to collaborate with).

Learning already comes from a variety of sources outside of traditional academic institutions. **In the future, school networks might be better able to coordinate cooperation with other industries, such as connecting student groups from various schools across the globe in an ongoing program managed by world-class institutions.**

Numerous public and private service options already exist, such as unofficial lectures and private tutoring services. Teachers become just one of many professionals serving students' needs in the future. Teachers will inevitably need to interact with these other players as society grows more involved in the educational process.

Certain artificial intelligence tutoring systems can currently provide customised help to an individual student and monitor their advancement. It may be necessary in the future for certain educational specialists to provide content for artificial intelligence systems (Ref. 14).

Activity:

Watch the video: *Collaborative Planning: Integrating Curriculum Across Subjects* on: https://www.youtube.com/watch?v=yCy4PSOvkL4

4. Teachers Collaborating Locally and Regionally

4.1 Introduction

There are various forms of collaboration, including task reallocation, partnerships with vocational institutes, and deeper community engagement. Cross-sector and interprofessional collaborations are seen as particularly powerful tools for strengthening the teaching profession. These collaborations can involve teachers working with professionals in other fields, such as social workers or teaching assistants, in ways that complement each other's expertise. In some cases, teachers and other professionals work closely together to support students, while in others, external professionals prepare students for learning in areas outside the teacher's skill set.

Teachers may also collaborate with other organisations, where they take on the role of collaborators within broader cross-sector initiatives. These partnerships, which can range from formal agreements to more informal arrangements, position schools as key actors in collaborative efforts. As researchers define it, cross-sector collaborations involve linking or sharing information, resources, and activities across organisations in different sectors to achieve outcomes that individual sectors could not achieve alone.

Schools already use specialists in their field and learning resources (e.g. community schools). This can involve doing anything from having different professionals speak to students in the classroom to holding classes in public areas like museums. In the future, all institutions will incorporate resources from many industries, realising that instructors cannot possess every kind of knowledge. A specialised position known as "border crosser" involves organisations in academic activity (Ref. 14).

Figure 6: AgriNext project: Teachers collaborating locally on Pilot testing in Karlovac of Training of Up-to-date Competences for Teachers

Activity:

Watch the video: ***Community Partners - Making Student Learning Relevant*** on: https://www.youtube.com/watch?v=30oAIh5y3g

4.2 VET institutions

In today's rapidly changing education and employment environment, effective cooperation between teachers and local stakeholders such as employers, entrepreneurs and representatives of different sectors is crucial. Strengthening relationships between schools and employers is not only important to remain competitive in the labour market, but also for students, as such collaboration enables them to acquire key skills for a successful career path (Ref. 24). In this process, **schools act as a bridge between students and employers, ensuring that young people have access to a wide range of career opportunities and experiences**. This increases the likelihood that they will stay in their home area after leaving school, which has a positive impact on the whole community.

VET teachers and trainers must be conversant with contemporary working practices. Many nations are experiencing a teacher and trainer deficit at VET institutions as the present workforce ages. Additionally, **some trainers and teachers may not have current work experience. It is advisable to promote flexible recruitment channels that enable individuals with industry skills to more easily join VET schools' workforces.** To maintain their industrial/professional know-how, trainers in VET schools should be encouraged to **work part-time** in the industry. Those in industry who oversee apprentices and trainees must be prepared for the role.

A different issue arises in the industry. Despite research showing the benefits of such preparation, trainers and supervisors of apprentices and trainees in firms sometimes lack specialised pedagogical training or other preparation. Supervisors of interns, trainees, and apprentices in the workplace should get appropriate pedagogical and other training, with the degree of preparation tailored to the type of workplace learning being offered.

The connection between the labour market and vocational education and training helps:

- companies comprehend what potential hires have learned in a program,
- students navigate their way through a training program into the workforce,

- and policy makers and training institutions determine whether their graduates are landing relevant jobs (Ref. 19).

"Teachers and trainers combine good workplace experience with pedagogical and other preparation to:

- *Make substantial use of workplace training in initial VET.*
- *Ensure that the framework for workplace training encourages participation by both employers and students.*
- *Ensure workplace training is of good quality, through an effective quality assurance system, and through the provision of a clear contractual framework for apprenticeships.*
- *Balance workplace training by other provision (e.g. training workshops in schools) where other learning environments work better, or if workplace training is not available.*
- *Devise effective responses to the current economic downturn, to sustain workplace training, and cope with increased demand for full-time VET."* (Ref. 19)

Making sure that trainers in VET schools, and to a lesser extent, teachers of VET theory, are conversant with the rapidly evolving demands of contemporary workplaces, is one of the issues facing teachers and trainers. Teachers and trainers in VET institutions must maintain current knowledge and skills. Only 28 % of full-time and 55 % of part-time trainers regarded their technical knowledge as current, according to an Australian survey. **All trainers in VET institutions should be encouraged to spend time in professional workplaces and, if feasible, work there on occasion, given the workplace's paramount relevance in the goals of VET**. According to research, unless in-service training is formally integrated into their employment and acknowledged as a part of their responsibility, vocational teachers often believe they are too busy to keep up with the latest developments in their field. It is also possible to promote the growth and renewal of work-related knowledge through incentives, especially remuneration incentives. (Ref. 19)

Flexible teaching in VET can be facilitated by hiring part-time teachers, provided that the working conditions of the teachers are not threatened. This is commonly the case with "side entry," "lateral entry," or "hybrid teaching" in VET by professionals from industry. Incorporating industry-experienced part-time VET teachers into the system can have several advantages, including mitigating teacher shortages, cutting expenses, enhancing flexibility in VET delivery, and introducing current industry expertise. Teachers can earn a VET teaching degree by combining their teaching experience with training through part-time teaching. A flexible work schedule, including teaching part-time, was cited by 68 % of respondents worldwide as the main reason they chose to become VET teachers, according to the 2018 TALIS statistics (Ref. 19).

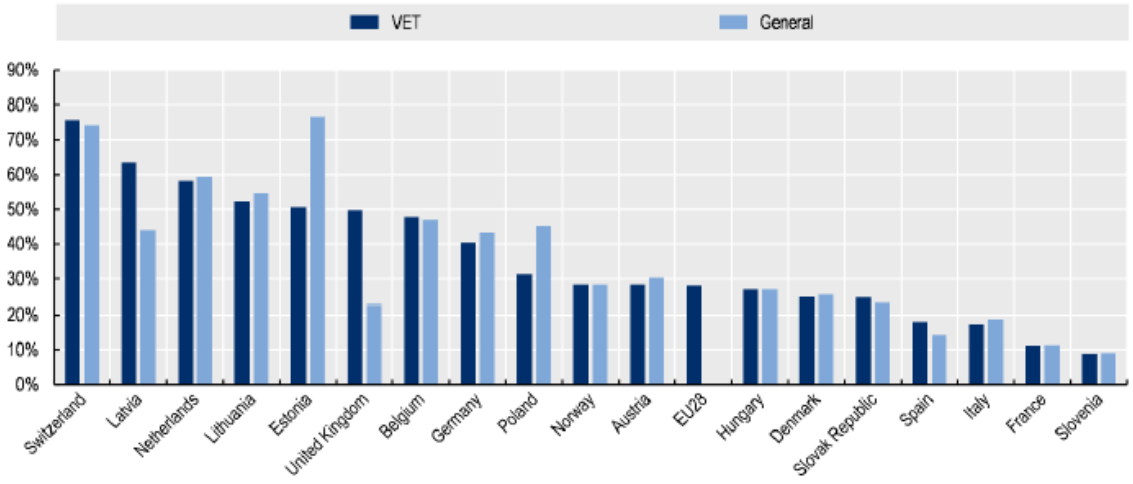

Figure 7: Part-time teaching in VET is common in some countries. Share of classroom teacher and academic staff in upper secondary education who work part time in the year 2019 (Ref. 10).

4.2.1 Collaborating with employers

Strong school-employer relations are crucial in the rapidly evolving context of workforce development and education, so it is imperative that educators and other local stakeholders—such as employers, entrepreneurs, and other members of the agricultural sector—cooperate effectively. These kinds of collaborations are essential for students as well as companies, who need to maintain their competitiveness in the labour market. Students gain vital skills from these partnerships that will help them have fulfilling careers. Conversely, schools are essential in creating these connections. They serve as a link between companies and students, giving young people access to a variety of experiences and career options. Collaborating with peers boosts students' exposure to a wider range of local businesses and professions, increasing the possibility that they will remain in their hometown after graduation. Positive features are (Ref. 13):

- *"Collaboration between schools and employers provides students with valuable real-world insights, giving them an insight into different industries, career roles and pathways that they may not have known before.*
- *This helps them to make informed decisions about their future. Such events are also networking opportunities where students connect with professionals early on, which can lead to mentorships, internships and even job offers.*
- *Employers can guide learners with information on the key skills they are looking for and help bridge the gap between theoretical learning and practical application. At the same time, by working together, they strengthen their brand and commitment to the community."*

The involvement of social partners, such as employers and trade unions, guarantees that the skill sets reflected in vocational qualifications match occupational needs, that programs reflect the broader needs of workers, that opportunities for work-based learning are of high quality, and that the mix of training provision between different occupations matches the mix of demand for jobs of different types.

The involvement of social partners can be thought of as a continuum between two extremes: on the one hand, social partners manage all on-the-job training and vocational education; on the other hand, organisations in charge of VET institutions, like national, regional, and local

governments, maintain complete control over training and vocational education without consulting social partners or providing training in businesses. Most early-stage vocational education and training programs aimed at youth fall in the middle. In school-based VET, social partner engagement would likely be less significant than in apprenticeship systems.

A Swiss study focuses on just employers and their cooperation with other stakeholders during the development, implementation, and evaluation of VET curriculum in an attempt to gauge the degree of connectivity between players from VET and employment systems across nations. The study concludes that excellent labour market results among VET completers are a result of VET systems that balance the effect of social partners and the education sector. The authors claim that in these kinds of VET systems (like those in Denmark and Switzerland), students complete a significant portion of their coursework in businesses, and social partners participate in the creation of qualification standards as well as examination and assessment specifications.

Strong collaboration between local authorities and schools enhances VET outcomes, according to a study conducted in Sweden on the availability of work placements in upper-secondary VET Additionally, as a beneficial effect of VET, social partners' collaborative involvement can foster innovation in businesses. While updating the elements of VET programs, social partners can consider and exchange knowledge about new technologies, production techniques, and training approaches. It is discovered that this effect is more pronounced for small businesses, suggesting that knowledge and innovation are shifting from larger to smaller businesses. (Ref. 20)

Activity:

Watch the video: ***Ways to Build School-Community Partnerships*** on: https://www.youtube.com/watch?v=WhHHbAGAKkg (XQ America)

5. Teachers Collaborating Internationally

5.1 Introduction

"High-quality education and training require the inclusion of an international dimension. This means a new focus in the teaching content and an increased attention to international mobility. For teachers, competence areas of critical importance include language skills, knowledge of other countries, knowledge of trades and trade requirements in other countries and intercultural communicative skills" (Ref. 27).

The VET teachers interviewed[4] reported that collaboration and advice from colleagues, especially concerning subject specialist issues was the basis of the most significant network. They felt that they received the most support, creativity, and practical advice from their most immediate colleagues. Internationalisation was not seen as significant.

Apart from a minimal amount of external networking in connection with placement issues, most of the VET teachers in our sample were not involved in any external networking. International

[4] The Cedefop's study Defining VET Professions1 carried out with the Teachers and Trainers network2 – TTnet – revealed serious discrepancies between the training of professionals in vocational education and training and their work realities. Based on research and interviews with practitioners in 17 European countries, the study produced a systematic inventory of the activities and competences of teachers, in-company trainers and leaders in VET. This inventory was further validated by practitioners and stakeholders in 21 European countries.

activities appeared minimal, being often in the hands of a few enthusiastic members of staff (Ref. 27).

International teacher mobility can improve teachers' general interpersonal skills, which can have a favourable impact on their collaborative efforts in addition to fostering collaboration across national borders. Professional experience abroad can be advantageous for teachers in several ways. Collaboration among teachers is one area in which international academic mobility may influence their attitudes and behaviours.

Teachers are also questioned by TALIS regarding the specific objectives of their professional stays internationally. These goals include learning as part of an education, learning a language, learning other subjects, going with visiting students, getting in touch with international schools, and teaching. Teachers specifically mentioned that connecting with schools overseas is a unique kind of cooperation and it is one of the goals of taking part in professional tours to other nations. From 12 % in Georgia to 63 % in Romania, teachers say that one of the professional goals of their foreign tour was to contact local schools. More than half of the teachers' state that one of their professional goals when traveling overseas is to connect with local schools in Estonia, Finland, Hungary, Latvia, Romania, and Slovenia (Ref. 17).

Figure 8: AgirNext project: Teachers collaborating internationally on the Pilot testing of Training for Guidance Service Provider

5.1.1 European School Education Platform (ESEP)

The European School Education Platform (Ref. 8) is a meeting point for the school education community – school staff, researchers, and policymakers – to share news, interviews, publications, practice examples, courses and partners for their Erasmus+ projects. Its eTwinning area is dedicated to eTwinners and their activities.

This site is managed by the European Education and Culture Executive Agency offers:

- Connecting with schools and organisations: Find organisations and schools to collaborate with
- Join webinars: Short online events to boost your professional development

- Discover the eTwinning community: Find out how eTwinning enables innovation and collaboration
- Explore resources on inclusive education
- Materials to enrich your classroom and school

eTwining

eTwinning is a community for schools, providing an online platform for educators to work together on national and international projects. With the help of eTwinning, educators and students can collaborate with schools throughout Europe in a secure environment, participate in online forums, and engage in peer learning and professional development activities.

Use EU Login to register as a user on the European School Education Platform and ask the National Support Organisation of the nation in which your school is located to validate you as an eTwinner.

What does the eTwinning platform offer?

Through the social networking tools provided, as well as through participating in Rooms, eTwinning groups, and European projects, eTwinners can network, share, and work together with other registered eTwinners and schools (Ref. 8).

5.1.2 The European Centre for the Development of Vocational Training (Cedefop)

The European Centre for the Development of Vocational Training (Cedefop) is one of the EU's decentralised agencies (Ref. 5).

Founded in 1975 and based in Greece since 1995, Cedefop helps to promote, formulate and implement Union policies in the fields of vocational and professional education and training, as well as skills and qualifications, in cooperation with the Commission, the Member States and the social partners.

Cedefop has developed EU-wide approaches to understanding current and predicting future skills supply and demand, with the aim of helping to influence VET policy and provision and, more broadly, people's educational and career choices.

This engagement with labour market and skills data collection and with the relationships between jobs, skills and qualifications enables VET to be better managed and proactively updated to create and sustain employability for VET learners and workers and competitiveness for enterprises (**Ref. 5**).

5.1.3 EPALE

EPALE is a multilingual, open membership network for adult learning professionals in Europe.

It brings together adult educators, trainers, guide and support personnel, academics and researchers, and policymakers.

Funding for EPALE provides The Erasmus+ program. It is a component of the EU's plan to encourage greater and better learning opportunities for all adults.

The adult learning professions are strengthened and supported by EPALE in order to achieve this. Through blog entries, forums, the Partner Search tool, and in-person events, it helps members network with and learn from colleagues throughout Europe (Ref. 7).

6. Good practices

6.1 The Regional Industry Education Partnerships (RIEP)

The Regional Industry Education Partnerships (RIEP) collaborated with the local agriculture sector in New England to develop Ag Camp New England, a transformative initiative designed to inspire and engage youth in the agricultural industry. This five-day camp connected schools in the New England area with local employers in Moree and the surrounding region, providing students with hands-on experiences and exposure to real job opportunities in agriculture. The program aims to raise awareness of agricultural career pathways, boost enrolment in Agriculture and VET Primary Industries courses, and support a smooth transition from education to employment. During the camp, 21 students from Peel High School, Wee Waa High School, and Gunnedah High School participated in practical workshops and immersive activities, visiting 15 employers across the Moree region and traveling over 800 kilometres in the process. Teachers also took part in the camp, gaining up-to-date industry knowledge and a better understanding of agricultural career pathways. Following the camp, 94 % of students indicated a newfound interest in pursuing careers in agriculture or began considering it as a viable option. One student remarked, "I really enjoyed seeing the 'behind the scenes' at all the places we visited. It gave me a fresh perspective on what I want to do in the future." (Ref. 15)

6.2 Centre for Vocational Training (CPI)

In Slovenia, practical work-based learning (PBL) is integrated into the school curriculum, accounting for 35 % of the total curriculum in vocational programmes and 6 % of the curriculum in technical programmes. In order to motivate teachers to connect with employers and gain experience, the Centre for Vocational Training (CPI) in Slovenia has implemented a project to invite practical teachers to participate in practical training in companies. The proposed findings include full support for in-service teacher training as a form of professional development to be extended to all schools and vocational education teachers. The development of a competent teacher who understands practice and can organise learning situations is crucial, and both individuals and schools should be motivated, so it is important that schools provide training for staff, especially those in direct contact with practical work and employers (Ref. 3).

Activity:

Read more about *Educational Farms in AGRI URBAN, CASE STUDIES* on: https://urbact.eu/sites/default/files/2023-03/AGRI%20URBAN%20case%20studies.pdf

6.3 Farmer Field School (FFS)

Farmer Field School (FFS) is an approach based on people-centred learning. Participatory methods to create an environment conducive to learning: the participants can exchange knowledge and experience in a risk-free setting. Practical field exercises using direct observation, discussion and decision making encourage learning-by-doing. The field is the space where local knowledge and outside scientific insights are tested, validated and integrated, in the context of local ecosystem and socio-economic settings. Community-based problem analysis is the entry point for an FFS group to develop a location specific curriculum. A growing range of technical topics are being addressed through FFS: soil, crop and water management, seeds multiplication and varietal testing, agropastoralism, aquaculture, agroforestry, nutrition, value chain, and link to markets, etc. (Ref. 11)

7. Conclusion

The teaching profession may benefit from cross-sector and interprofessional collaboration, but this is not a given. It depends on implementation decisions and the capacity of decision makers at various levels to determine whether such collaboration is necessary at any particular time. In their own circumstances, policymakers must determine the kinds of partnerships required to sustain the teaching profession.

The purpose of these five guiding principles for cross-sector or interprofessional collaboration is to provide leaders and policy makers in the education sector with a framework to work from when deciding on various forms of collaborative initiatives (Ref. 14):

- “The collaboration needs to be continuously warranted for everyone involved
- Teachers and other stakeholders need to be involved in planning and developing the collaborative effort
- Trust-building leadership is vital
- Clarity facilitates collaboration
- Good interprofessional and cross-sector collaboration needs to be learnt”

Implementing innovative practices requires teachers to continuously reflect on their existing teaching methods and consider changing their knowledge and beliefs Collaborative professional development can allow for these kinds of interactions between teachers (Ref. 17).

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