



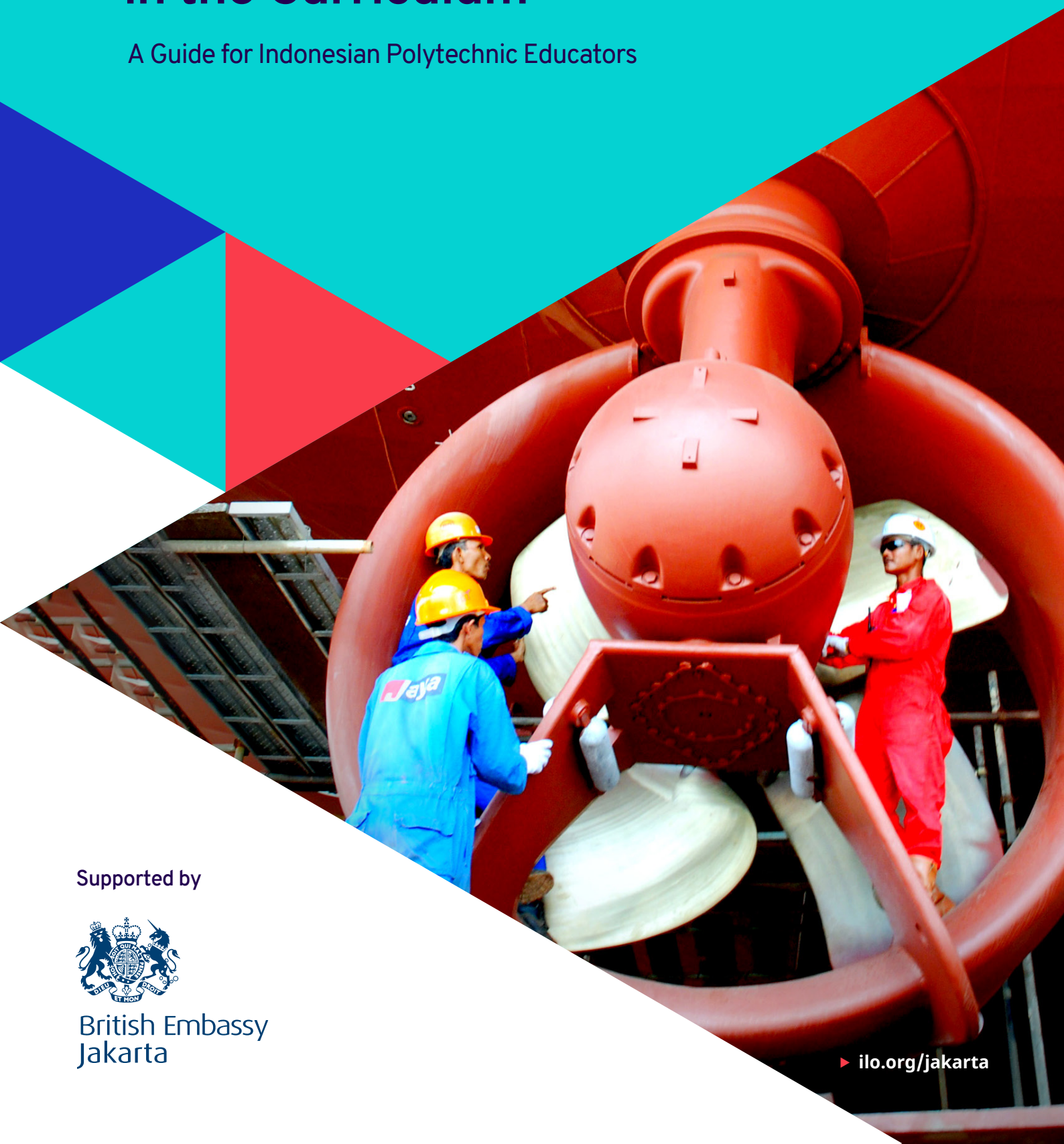
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► Embedding Soft Skills in the Curriculum

A Guide for Indonesian Polytechnic Educators



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▶ **Embedding Soft Skills in
the Curriculum: A Guide
for Indonesian Polytechnic
Educators**

May 2023

University of Gloucestershire
International Labour Organization



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Foreword

In today's rapidly evolving world where technology innovations and global forces advance at pace, the acquisition of academic knowledge and technical skills alone are no longer sufficient for individuals to realise their full potential in gaining and maintaining decent employment throughout a working lifetime. Employers and governments are increasingly recognizing the value of soft skills in shaping an individual's professional potential.

Indonesia's labour market is undergoing transformative change in response to industry automation and digitization as well as demographic shifts, environmental and climate responses, and globalization. The skills requirements of many industries will change as technologies are adopted, with some jobs and skills expected to become obsolete. At the same time, new industries will emerge, which will bring new job roles requiring skills sets that are entirely new.

The need for individuals to adapt within job roles and the prospect of multiple careers brings a new focus on the requirement to develop soft skills to support lifelong learning and employment. Soft skills, sometimes called core skills or generic skills, encompass a wide range of personal attributes and interpersonal abilities that enable individuals to navigate complexity. Effective communication, critical thinking, emotional intelligence and leadership are all examples of soft or core skills, that will be in increasing demand as the economy moves toward higher-skilled jobs and develops knowledge-based industries.

The Skills for Prosperity Programme, delivered by the ILO and funded by UK government has provided a model for the development of higher-level vocational programmes supported by structured sectoral industry engagement to maximise graduate progression into the workforce. The programme has been delivered in four polytechnic partner institutions, and this guide has been developed through the process.

The programme has been delivered to align with the Ministry of Education, Culture, Research and Technology (MoECRT) Emancipated Learning (Kampus Merdeka - Merdeka Belajar) initiative, which encourages education institutions to work with industry to inform curriculum content and delivery; and to introduce learning activities that can take place outside of the traditional classroom environment such as work-based learning, research and community service.

The Kampus Merdeka - Merdeka Belajar initiative has created the opportunity for education institutions to formulate and implement specific standards and strategies alongside and in response to their industry partners. The initiative also welcomes in new and diverse learning landscapes through which soft skills development activities can be designed and delivered.

These extended parameters of teaching and learning will require new approaches by teaching staff to fully realise the potential of soft skill development in their teaching practice. Teachers may be encouraged to collaborate with industry and design innovative learning experiences; as well as develop their own ability to identify soft skills in the moment as students demonstrate their progress.

The guide '**Embedding Soft Skills in the Curriculum: A Guide for Indonesian Polytechnic Educators**' aims to assist teachers in this process - from identification, to implementation and to assessment of soft skills in the curriculum delivery and assessment. This publication is intended to guide teachers in building an enabling environment for soft skills development, understanding graduate destinations and industry needs, and embedding soft skills in curriculum delivery and assessment. The guide is designed to be practical and easy to use with development activities suggested throughout. We aim that this learning guide will be shared widely to inspire and assist vocational education and training institutions in improving the quality of learning outcomes through the integration of soft skills into the curriculum and learning process.

Thank you to the University of Gloucestershire, especially Clair Greenaway, who led the development and compilation of this learning guide; and Ferdinand Leohansen Simatupang from the ILO who designed the concept and coordinated delivery.

Our gratitude goes to the Ministry of Education, Culture, Research and Technology (MoECRT), and polytechnic partners: Politeknik Negeri Batam, Politeknik Maritim Negeri Semarang, Politeknik Perkapalan Negeri Surabaya, and Politeknik Negeri Manado for their valuable inputs during the data collection; as well as the representatives of the Industry Advisory Boards who have shared insights throughout the programme.

We thank the UK Government for their financial support for the Skills for Prosperity programme, and the British Embassy Jakarta for their ongoing support in Indonesia.

Mary Kent

Chief Technical Advisor, Skills for Prosperity Programme
ILO Indonesia

▶ 1. Introduction

This guide has been produced by the University of Gloucestershire under the overall guidance of the International Labour Organization (ILO) as part of the Skills for Prosperity in South-East Asia programme in Indonesia. Reflecting on the collaboration established by the ILO programme between four Indonesian polytechnics and four United Kingdom Higher Education Institutions, with specific focus on maritime sector linked study programmes, the guide is designed as a practical tool to support educators in ensuring soft skills are embedded in the curriculum and that graduate outcomes align with the demand of soft skills by the industry.

The guide has been written for those involved at any stage of the design, development and delivery of polytechnic curricula in Indonesia. It is intended as a practical “how to” document, rather than a treatise on institutional strategy and policy, although the models and approaches outlined could be explored as part of the broader embedding of institutional academic quality management and monitoring.

Curriculum development is an iterative process, and we acknowledge that every institution will be at a different point on this journey. In addition, Indonesian institutions must ensure they meet established national competency standards (SKKNI) and strive to reflect the needs of industry. The Ministry of Education, Culture, Research and Technology (MoECRT) strongly promotes the link and match between education competency and industry needs and encourage the collaboration between education institutions and industry¹. Soft skills are frequently requested by industry as a skills that need to be equipped during the education / training. The MoECRT guidance on partnership between vocational education and industry as well as Kampus Merdeka initiative provide opportunity for polytechnics to initiate identification, development and implementation of soft skills based on specific industry needs. With this in mind, the guide can be explored and applied at any stage, and models of best practice and practical tools can be applied at programme, module, and assessment level. That said, we encourage academic teams to take a matrix approach and review the embedding of soft skills in the way that best enables examination of the *complete* student experience. Whilst trialling of a new approach in a single module may be a manageable first step, as application of the guide is expanded, there will be a need to review assessments and modules within the broader context of the whole programme in order to avoid duplication and maximise the potential for creating a richer, more impactful curriculum.

The guide is split into three sections which broadly explore:

- ▶ **Section 2:** The establishment of an academic environment in which soft skills can flourish;
- ▶ **Section 3:** The significance of creating strong connections with industry; and
- ▶ **Section 4:** Best practice process and models for embedding soft skills in the curriculum.

Each section poses a series of questions and / or suggested activities to undertake.

¹ A guide for education institutions and industry has been developed by the MoECRT, 2020, Kemitraan pendidikan tinggi vokasi dengan industri, dunia usaha dan dunia kerja.

► 2. Creating an Enabling Environment for Soft Skills Development

This section includes:

- Understanding the significance of soft skills in industry;
- Creating a learning environment that facilitates soft skills development;
- Building an academic team with the expertise to nurture soft skills; and
- Engaging students in personal professional development.

2.1. Understanding soft skills

Technical and Vocational Education and Training is focussed on ensuring students acquire the knowledge and technical capabilities required to access decent work opportunities, and flourish in specific industry settings. Qualifications in Indonesia's polytechnics align directly with professional roles and industry specialisms, such as maritime logistics, seafaring, shipbuilding engineering and tourism. However, despite rising student numbers in the polytechnic sector, a lack of alignment with industry needs has led to a mismatch of skills and higher levels of unemployment among vocational graduates than is experienced by students graduating from either university or general high school ².

Alongside acquisition of industry specific knowledge, future employers expect graduates to also possess relevant hard skills (applied technical expertise) and soft skills (personal and interpersonal expertise). Industry stakeholders in Indonesia have particularly identified a mismatch in terms of graduate outcomes and industry expectations of soft skills, suggesting that these skills are currently not sufficiently embedded in the curriculum. This guide is designed to support academic teams in addressing this challenge.

MoECRT has provided a bridge to polytechnics to build an enabling environment for soft skills implementation through Merdeka Belajar – Kampus Merdeka³ (MBKM) initiatives. Merdeka Belajar – Kampus Merdeka encourages education institutions to develop various schemes of learning both within and beyond the traditional classroom-based curriculum. Activities can include student exchanges, apprenticeships, practical research, entrepreneurship, student projects and even humanitarian work.

As such, Merdeka Belajar – Kampus Merdeka provides many new modalities through which teachers can encourage the development of students' soft skills, as needed for their transition to the world of work. The wide range of activities encouraged under MBKM can reflect the scope of soft skills required by Indonesia's diverse industries. For example, the communication skills, or self-management skills developed by students in an industrial apprenticeship setting, maybe very different from those developed by a student supporting a humanitarian project.

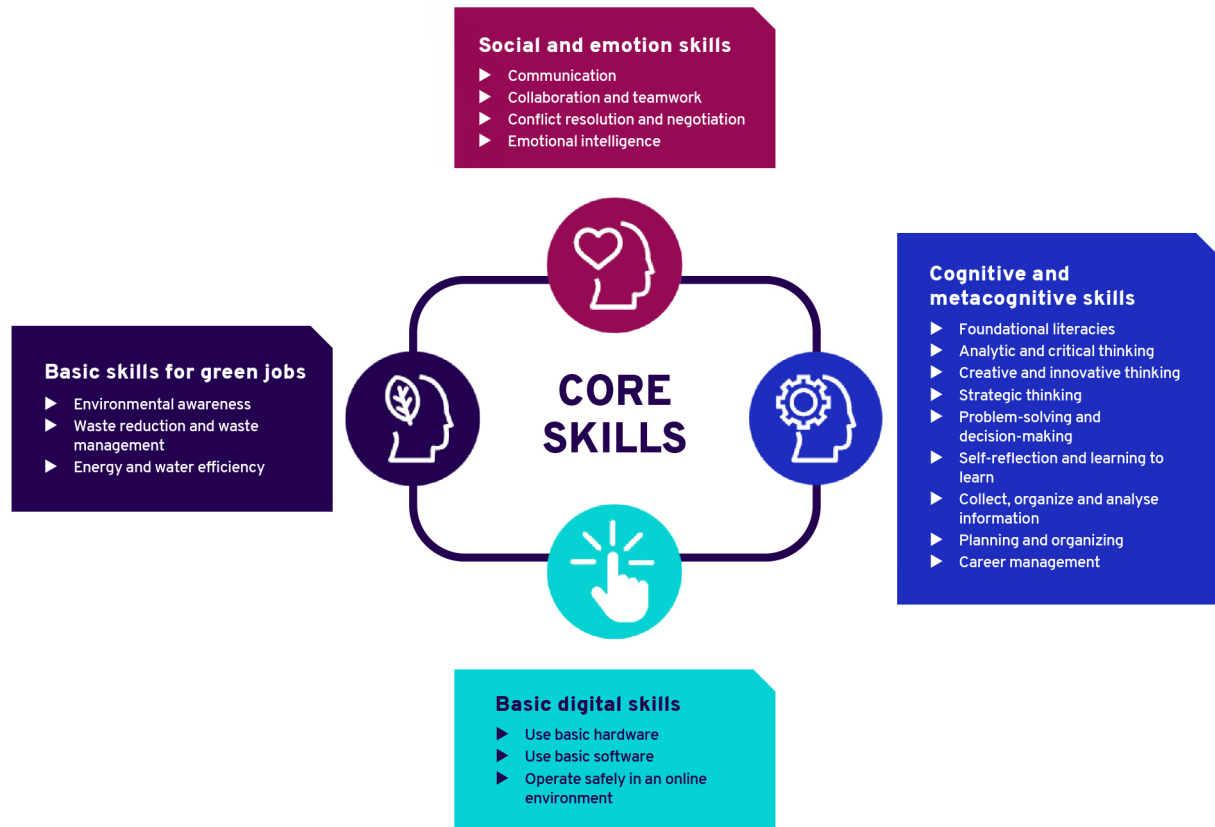
In identifying foundational soft skills, academics should refer to The International Labour Organization's *Global Framework on Core Skills for Life and Work in the 21st Century* (2021) ⁴. Whilst the framework explores a broader mix of non-technical core skills required by workers at all levels of industry, those categorised as "social and emotional skills" and "cognitive and metacognitive skills" will be identified as the core "soft skills" for the purpose of this guide. These are listed as appendices to the document for ease of reference.

² Chapeau Paper, 2019. Available: https://sea-vet.net/images/seb/initiatives/appendix_file/527/final-tvet-chapeau-paper-10-march-2019proofread.pdf

³ MoECRT, 2020, Buku Panduan Merdeka Belajar – Kampus Merdeka

⁴ ILO, 2021. *Global Framework on Core Skills for Life and Work in the 21st Century*. Available: https://www.ilo.org/skills/pubs/WCMS_813222/lang-en/index.htm

► **Figure 1. International Labour Organization global framework for core skills (*Global Framework on Core Skills for Life and Work in the 21st Century* (2021))**



Whilst soft skills are universally required in the graduate workforce it should be recognised that the balance of skills will vary between industry specialisms. Therefore, academic teams must ensure they embed soft skills education to best suit the intended graduate destinations associated with each study programme.

The first step in creating an enabling environment must be ensuring that all members of the academic team have a clear understanding of the nature of soft skills, and can identify a range of soft skills appropriate to their programme specialism and graduate outcomes.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Identify key soft skills needs

- All members of an academic team should be able to identify the hallmarks of soft skills as opposed to industry knowledge or technical expertise. At department level, generate a foundational list of core soft skills (rather than applied industry specific skills), associated with the study programmes provided by the department. The lists in the appendix may be used as a starting point.
- This list should be reviewed at least every year.

2.2. The polytechnic learning environment

Soft skills development will flourish in a learning environment that nurtures student confidence and recognises students as individual learners with personalised needs. Above and beyond curriculum framework, the culture and ethos of the learning environment should be explored to identify:

1. any barriers that may restrict a student's ability to develop and enhance personal and interpersonal skills
2. any extracurricular opportunities which can be offered to enrich personal and interpersonal growth

Graduates will enter local, regional, national and global workplaces. Wherever possible the learning environment should model their future professional setting and encourage them to develop confidence in operating in this environment. For example, graduates are much more likely to be confident in offering opinions to managers, and promoting change in future, if they had the opportunity as students to engage in dynamic conversations with their academic team, and if they felt that their voice was heard and respected.

A new, and different focus on soft skills may ultimately require a significant shift in the learning environment and ethos of the institution. It is acknowledged that cultural and religious factors may influence institution level management and classroom interactions with students. However, taking time to reflect on the educator-student dynamic, with a focus on closer replication of the industry environment, is an important step in creating a learning context in which soft skills can be nurtured.

SUGGESTED QUESTIONS FOR TEACHING TEAMS: Create a learning environment that nurtures soft skills.

- ▶ What are the opportunities for students to enrich their soft skills through MBKM activities?
- ▶ How can these be fostered and developed further?
- ▶ What are the barriers to developing personal and interpersonal growth?
- ▶ Can the culture and ethos of the institution be developed to create a dynamic which better models industry and allows students to employ soft skills?

2.3. Skills mapping of academics

Individual members of the programme's academic team will take direct responsibility for embedding soft skills in the learning experience. Ensuring effective skills acquisition will require: the ability to articulate and explain specific skills; the capacity to contextualise each skill within the relevant industry; and the capacity to model soft skills in the classroom. Students should be able to clearly grasp what each soft skill encompasses and appreciate how they can develop their expertise.

Industry stakeholders identify a significant challenge where academic teams include few (if any) colleagues with direct, recent industry experience. The development of industry relevant curricula is subsequently hampered by a lack of applied expertise and contemporary insight. Mapping the industry specific experience and skillset of academic team members, as well as identifying personally held industry connections, allows

the institution to both highlight skills champions and create professional development opportunities for educators. Taking time to upskill and refresh the academic team's industry experience should be an ongoing commitment and will underpin the institution's ability to ensure the curriculum is industry relevant.

SUGGESTED ACTIVITY AT DEPARTMENTAL LEVEL: Mapping soft skills expertise of teaching teams.

- ▶ Complete a skills audit of the academic team paying particular attention to: industry specific experience (paid or voluntary); specialist industry knowledge areas; applied technical industry expertise; and industry connections/networks.
- ▶ How can this mapping tool be used to underpin the embedding of soft skills across the curriculum?

2.4. Building an alumni mentoring network

Whilst it is particularly important to ensure that the academic team maintains industry connections and expertise, the institution should also seek to enlist alumni in supporting current students. Securing programme graduates who have taken the next steps in their professional journey, and are willing to operate as light-touch mentors, can often prove particularly successful in terms of emphasising the significance of skills development to current students.

In selecting mentors, the academic team should seek to maximise the opportunity for students to identify with alumni on a personal level. This could be in terms of gender, demographic background, educational capability or might be linked to ambitions and future career paths. Imagine a student joining the institution from a remote rural village and facing the challenges of progressing to Higher Education in a technical, urban environment. Or consider the limited ability of a new undergraduate to visualise the potential range of international career paths available to them. Connection with alumni who have had similar personal experiences and been through the undergraduate journey will be reassuring, insightful and aspirational. It is also noted that students are likely to develop very different relationships with alumni than with the academic team and this will, in turn, support development of key soft skills such as communication and networking.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Engaging alumni

- ▶ Identify programme alumni who may be willing to operate as mentors to current students. Particular attention should be paid to connecting with alumni who: represent a broad range of student experiences; can create connections with a range of career paths; and are able to model soft skills to current students.

2.5. Engaging students in personal soft skills development

A final step towards creating an enabling environment for soft skills acquisition is to ensure that students are fully engaged in this area of professional growth beyond compulsory participation in linked curriculum activity. Developing personal and interpersonal expertise requires maturity and honest self-reflection. It will be an iterative process, acquired through endeavour rather than learnt by rote. Taking time at the start of a student's academic journey to introduce professional reflection models will enable them to employ a framework in their development and ensure the significance of soft skills is emphasised.

Placing professional development at the heart of the student journey will support a broader programme to promote global industry readiness. Encouraging students to develop the articulation of their own professional brand, through tools such as LinkedIn, for instance, will challenge students to employ strong communication techniques. Likewise, the building of a personal industry network, whether virtual or face to face, will encourage students to review and articulate their professional ambitions. In order to support this activity, the academic team must be ready to model professionalism and demonstrate use of widely employed industry tools, such as LinkedIn, themselves.

One of the strategies that polytechnics can adopt is to develop a career center and/or employment services that provide information on occupations and the skills required. These functions can help both students and teaching teams to understand both technical and soft skills required by industry for specific occupations. Understanding industry requirements will help students understand the soft skills area they need to improve from the start of their studies at the polytechnics. Politeknik Negeri Batam (Polibatam), for example, has built Polibatam TalentHub ⁵, a web-based platform for the careers centre and employment services. The platform will be the media where students and industry meet and match capacity building and job opportunities. Every student has their own profile that is competency-based and can be accessed by industry partners who have signed the partnership with the polytechnic. On the other hand, industry will upload information on capacity building and job opportunities, which can be accessed by students. By uploading information where specific soft skills are clearly identified, students will be able to prepare themselves not only for entry level roles, but also for their future career.

SUGGESTED DEVELOPMENT ACTIVITY FOR LEADERSHIP AND TEACHING TEAMS: Modelling professional behaviour.

- ▶ Identify which soft skills are most important for institutions leaders and teachers to model in their professional behaviour?
- ▶ For example, if an institution prioritises the development of teamwork or collaboration skills, how might teaching teams demonstrably model good practice of this soft skill to students through their professional behaviour?
- ▶ Review all soft skills identified at the departmental level. Which can best be modelled by teaching teams and individuals?

⁵ The link for the Polibatam TalentHub can be access at <https://talent-hub.id/>

▶ 3. Understanding Graduate Destinations and Industry Needs

This section includes:

- ▶ Mapping future employment routes and identifying job profiles;
- ▶ Understanding student ambitions and motivations;
- ▶ Recognising disparity between alumni achievement and institutional aspirations;
- ▶ Connecting with industry to enhance insight; creating an industry advisory group; and
- ▶ Embedding industry connections in teaching and learning.

3.1. Graduate destinations

All qualifications will have Learning Outcomes, usually differentiated at programme and module level. We know what we want the students to achieve in academic terms and, in the vocational education context, this should be clearly linked to industry needs locally, nationally and globally. The development of Industry Advisory Boards (IABs) is one way of structuring improved links between the vocational institution and key target sectors of the local economy ⁶.

The specialism of each study programme will most likely be evident in the award title but this is unlikely to specify the potential career paths and explicit job roles graduates are likely to undertake. The academic team should engage in scoping employment opportunities relevant to the industry specialism of the programme. The ability to articulate future career paths enables us to identify the underpinning capabilities required to secure graduate employment opportunities. The programme's academic team should have the insight to identify a range of job roles offering a breadth of potential for progression.

Ensuring the academic team can identify a range of career paths and job roles not only allows us to develop appropriate higher education curricula but should also support outreach activities more broadly which will, in turn, inform the development of more engaged future cohorts. When connecting with secondary school age pupils, or undertaking community outreach, for instance, highlighting industry specific jobs, earning potential and progression opportunities open to polytechnic graduates will encourage future students and their parents to think more specifically about their education choices.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Soft skills required for graduate employment

- ▶ Identify the industries and specific job types that students can realistically expect to progress to from each study programme.
- ▶ Research vacancy advertisements or job specifications where available.
- ▶ What knowledge, skills and attributes are required to succeed in these roles?

3.2. Student career ambitions

Personal motivations for engaging in higher level vocational education will be varied and it is acknowledged that participation may be driven by factors other than subject interest or career ambition. Whilst students may not have specific, industry-linked graduate ambitions it remains important to identify their short, medium and longer-term employment aspirations. They may not yet have identified a subject specialist employment path but instead have broader ambitions around role type, job security, earning potential, location or progression opportunities.

Considerable insight into graduate destinations can be gathered from monitoring and maintaining a dialogue with students and alumni at key points in their journey. For example, identifying the aspirations and ambitions of students on arrival at the institution, at their graduation, at a fixed period following graduation (for example one month); and then tracking their progression and ultimate career destinations after graduation. It is important to consider whether or not graduates have met the ambitions of their institution; and where significant numbers do not progress to relevant employment, it is important to identify and address the constraining factors.

SUGGESTED ACTIVITY WITH STUDENTS: Engaging students in considering soft-skills requirements for relevant employment

- ▶ Conduct a survey or hold a classroom discussion with students at the start of their studies.
- ▶ What are their aspirations? What motivated them to enrol for the programme?
- ▶ What do they hope to gain from their studies?
- ▶ What do they know about the industries and job types associated with the study programme? What soft skills do they consider most important to progress to employment?
- ▶ Review the responses in terms of how well-developed they are and how well they relate to the industry specialism.
- ▶ Use the information to inform the development of soft skills activities in the study programme.
- ▶ The exercise can also be repeated at the end of the academic year.
- ▶ Comparison between alumni achievements and enrolment expectations, may be particularly insightful.

3.3. Understanding the industry specific employment market

Industries can undergo changes and developments at rapid pace, and academics must stay connected to developing trends in employment including: types of jobs and careers available; salaries and benefits; emerging industry specialisms; and, most specifically, the changing graduate skillset expected or desired by employers.

Certain industries will require graduates to meet pre-agreed standards of expertise, training and/or logged hours in the workplace. Such industry standards should underpin the framing of the curriculum to ensure that graduates achieve pre-requisites in a timely manner and with academic support. This may require the programme to secure specific accreditation or to work in partnership with an identified professional body.

Whilst polytechnics operate in a local context, it is likely that graduates will be stepping into an international employment setting and their studies must be framed in readiness for this transition. With this in mind, key touchpoints for global graduate recruitment in the relevant industry should be identified. Identification of key international recruiters, graduate schemes and career paths which navigate a global context may assist this process.

Understanding the demographics of your student population can be useful when reviewing provincial or Indonesia-wide opportunities. What are the industry employment opportunities local to your institution or in the home regions of your students? What are the environmental factors, natural or built, in the province that influence the development of industry and how does this, in turn, affect the requirements of employers when recruiting graduates?

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Industry-specific employment pre-requisites

- ▶ Examine the nature of employment in industries linked with key study programmes.
- ▶ Are there any industry standards or pre-requisites that graduates must achieve?

3.4. Establishing and managing an Industry Advisory Board

The long-term health of any Vocational Education programme relies on its relevance to the industry graduates are destined to join. Maintaining a strong connection between each study programme and its industry will be key to ensuring that graduate outcomes match industry needs. Inviting industry stakeholders to support the development of their future workforce can create a valuable space for structuring a regular dialogue between educators and practitioners.

Industry Advisory Boards (IABs), also known as Employer Advisory Boards or Forums, are groups of industry representatives, usually from a single sector in a geographic region, convened by a representative of a vocational or academic institution, to advise on and develop collaborative, evidence-based responses and solutions to local skills needs.

The key purpose of such a forum is to explore how the polytechnic, through the development and delivery of its programme, can best support the needs of industry and how, in turn, industry can support the programme and its students. This is a mutually beneficial dialogue designed to support and secure a graduate talent pipeline.

Industry Advisory Boards should be established at the study-programme level, and industry participants should have an overview of the complete student experience. That said, there may be specialist practitioners who additionally collaborate with members of the academic team around specific topics or modules. It is suggested that the IAB should meet three times during the academic year but connection with individual stakeholders or communication/updates by email or more informally may well take place in addition to formal meetings.

The Industry Advisory Board should be framed to reflect the ambitions of the academic team in terms of industry connection and the graduate destinations of students. Membership should be informed by the curriculum and may include a blend of local, regional, national and even international industry stakeholders.

A “good” Industry Advisory Board member will operate as a critical friend to the programme. Their focus should be on highlighting opportunities for growth and development and dialogue should be open to allow the identification of challenges and issues which, in turn, industry members should support in addressing. Whilst it may be helpful to include a small number of alumni in the IAB they should not represent the majority, and it is important that alumni feel able to engage in frank and open dialogue with the former lecturers.

It may take time to build an IAB that truly reflects industry, and you may need to offer support and development to members to ensure they can contribute fully and maximise reciprocal benefit from engagement. Membership of the IAB should be worthwhile for your industry partners and this will only be the case if they truly feel their input is heard. It may be worth creating opportunities for established members/more experienced practitioners to mentor newer members of the IAB.

In terms of engagement, meetings of the IAB should focus on four key topics:

- ▶ What are the current trends in industry and what is influencing these developments;
- ▶ What are industry stakeholders looking for in terms of graduate outcomes;
- ▶ What is the Group’s assessment of the current curriculum, particularly in terms of industry interactions; and
- ▶ What insight can industry offer in terms of how to develop the curriculum to respond to current trends and secure the graduate talent pipeline.

SUGGESTED ACTIVITY AT DEPARTMENTAL LEVEL: Establishing an Industry Advisory Board

- ▶ Create a model for a representative Industry Advisory Board and progress to identify and invite industry stakeholders to become members.
- ▶ Establish a Terms of Reference for the IAB, supported by a regular agenda and confirmation of meeting frequency.
- ▶ What are the outcomes the academic team would like to achieve through the establishment of an Industry Advisory Group and how will progress be monitored?

3.5. Maximising the potential of industry connections

Every member of the academic team has a role to play in building stakeholder relationships and it is important to recognise that there should be many more industry inputs to the programme than those represented in the Industry Advisory Group.

Developing and growing a network of industry stakeholders who can support students throughout their academic journey will not only underpin the design of an industry relevant programme but will also ensure that assessments and modules remain closely aligned to industry trends. Collaborating with industry and embedding learning opportunities that connect students with contemporary industry challenges can underpin the development of soft skills in the curriculum. The academic team should seek to identify opportunities that may include: guest lectures from industry speakers; fieldtrips to industry businesses; pre-recorded contributions from industry stakeholders; worked case study examples from relevant industry

settings; formative and summative tasks directly linked to contemporary industry issues; involving industry stakeholders in giving feedback to students; and structured work based learning opportunities.

SUGGESTED ACTIVITY FOR TEACHERS: Integrating industry activities into teaching modules.

- ▶ Identify opportunities for embedding industry involvement into modules and lesson plans, for example: guest lectures, field-trips or project-based learning activities.
- ▶ Care should be taken to discuss intentions across the academic group to avoid duplication of effort and promote vibrancy in the learning experience.

► 4. Embedding Soft Skills in the Curriculum

This section includes:

- Creating a Personal and Professional Development module;
- Encouraging students to utilise professional reflection;
- Creating a menu of programme-linked soft skills;
- Employing a matrix model for embedding soft skills across the programme;
- Creating formative and summative opportunities for soft skills acquisition;
- Assessing student acquisition of soft skills; and
- Evaluating the success of embedding soft skills.

4.1. Personal and Professional Development

Programme learning outcomes should identify academic expectations of graduates and should align with the expectations of industry:

1. that students acquire industry specific knowledge and understanding
2. that graduates possess relevant hard skills (applied technical expertise)
3. that graduates possess a full complement of soft skills (personal and interpersonal expertise)

Programme shape is constructed of modules which are building blocks towards emergence as a fully rounded professional graduate. Whilst individual modules may have discrete knowledge-based or technical expertise focus, soft skills acquisition should be embedded throughout multiple modules and across all years of the programme. However, there is still space to consider the creation of a bespoke Personal and Professional Development module, ideally at the commencement of undergraduate study. As indicated in Part 1, in order to create an enabling environment, we must put soft skills front and centre of the student learning experience. A module in the first semester which requires new students to actively engage in considering their personal professional identity can be the cornerstone of embedding soft skills. If a full module is not possible then elements of content should be placed within induction or a compulsory module at the start of undergraduate study.

First and foremost, students should be asked to reflect on their personal skillset. The following questions may be useful as starting points:

- What industry knowledge, technical expertise and personal attributes do they currently possess?
- How have they honed this skillset and what do they consider to be their own strengths and weaknesses in terms of personal and interpersonal expertise?

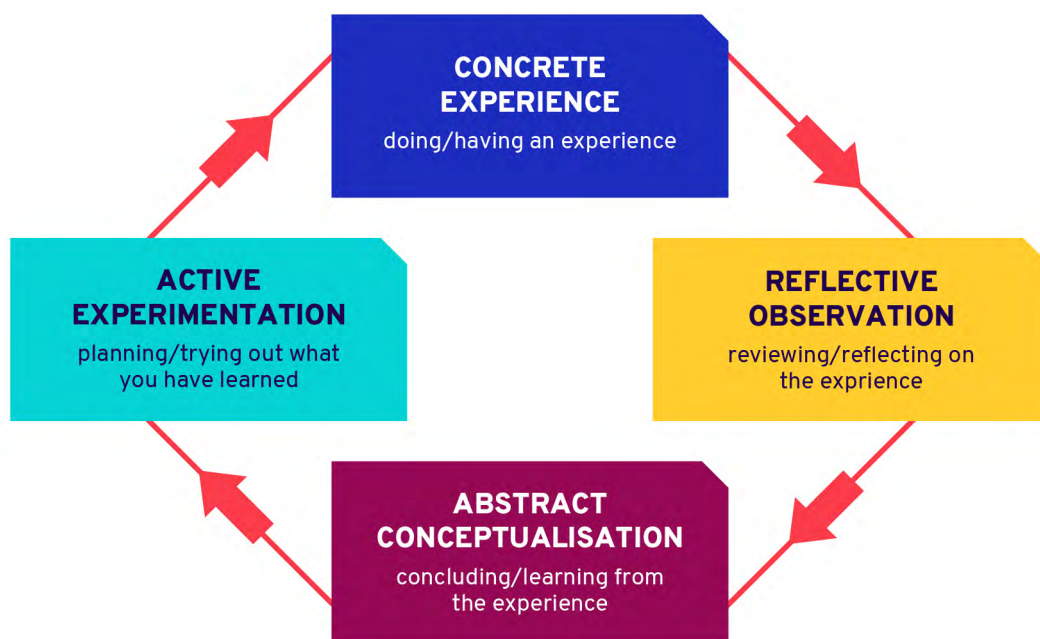
Next, students can move on to consider future career paths and identify the knowledge, expertise and attributes required in specific job roles. This could be supported by direct interaction with industry or connection with alumni mentors and would, in turn, be a step towards the embedding of networking expertise. This exercise, undertaken over a number of weeks, will allow students to build a strong connection with their future industry and encourage them to consider their personal professional ambitions. Students

may be encouraged to articulate and share on the following with peers in their study programme:

- ▶ What are their hopes and aspirations?
- ▶ What do they seek to achieve in their future career?

Finally, the module can create an opportunity to introduce and develop professional reflection capability. The introduction of models such as Kolb's 1984 Cycle of Reflective Practice or Gibbs' 1988 Reflective Cycle will enable students to manage their own professional development and identify opportunities for growth as they progress through the undergraduate journey.

▶ **Figure 2.**



Source: Kolb's 1984 Cycle of Reflective Practice

This could be taken a step further with the use of a personal soft skills log or journal for students to capture their development over the course of the programme and should certainly be complemented by the introduction of tools such as LinkedIn.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Developing a module for personal and professional development

- ▶ Develop a bespoke module to support personal and professional development aligned with relevant industries and job types.
- ▶ Introduce soft skills logs for students to capture their own development throughout their study programme
- ▶ How might this be monitored/utilised over the course of their undergraduate experience?

4.2. Creating a menu of programme linked soft skills

Before embarking on embedding soft skills in teaching, learning and assessment, the academic team should ensure they establish a shared vision of which soft skills the programme should emphasise. Parts 1 and 2 of the guide encourage educators to connect directly with graduate destinations and build a picture of the soft skills required by industry. From this process a list of significant soft skills should be developed for embedding. There is no limit to the number of skills this can include, but it should be realistic in terms of available time and resource to implement learning. It is ideal to create a foundational list utilising the ILO's Global Framework as a starting point.

Having established a list of soft skills graduates should acquire it will be useful to consider as a team what is meant by each skill on the list, and how it is applied in industry. The latter is particularly pertinent as the application of skills such as communication or collaboration, for instance, will vary dramatically depending on the dynamic of the setting. Ideally, the programme's Industry Advisory Board should be involved in a discussion of how strong soft skills are demonstrated in practice, and to establish expectations of graduate level personal and interpersonal expertise.

From a point of consistency, if soft skills are to be formally assessed then the academic team should agree criteria for soft skills demonstration that can be applied across modules. This may be differentiated by semester or year of study. Agreeing and establishing definitions of each skill and sharing this with students will particularly support their emerging reflective professional practice.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Assessment of soft skills

- ▶ Based on the core soft skills identified for each study programme, identify and define the soft skills that graduates should be able to demonstrate. For example, would they be expected to be able to plan and prioritize certain tasks; or be able to manage a customer complaint?
- ▶ Identify how these soft skills may be assessed throughout the study programme, for example by an industry assessor as part of a structured internship, or by verbal presentation, group projects, etc.

4.3. Establishing a matrix model for embedding soft skills

An ideal approach to embedding soft skills would be to review the full programme and identify which modules best support the development of specific skills across the complete student experience. However, if this is not practical as a wholesale exercise then, as a minimum, embedding of soft skills should be implemented a single Semester at a time, beginning with Semester 1. Throughout this process it is important to remember that one can never "finish" acquisition of a soft skill. It is a constant development journey and therefore it is appropriate for multiple modules to link to the same skills and for students to continually return to skills they first identified as new undergraduates. That said, learning activities should be designed bespoke for specific module contexts to ensure dynamic curriculum engagement.

Building a matrix model approach to embedding soft skills will require honest discussion of the curriculum. Coming together as an academic team to explore modules will enable you to identify connections across

the programme and highlight opportunities for skills to be introduced, developed, applied and critiqued. Both academics and students should be able to clearly articulate the soft skills development journey and, if you wish, above and beyond in-module activities, students could log and reflect on their development as an ongoing professional process.

SUGGESTED ACTIVITY FOR TEACHERS:

- ▶ Review an agreed aspect of the programme (at least a single Semester) and identify which modules offer an opportunity to embed and emphasise soft skills.
- ▶ Ensure that all members of the academic team can articulate how soft skills are embedded and developed to students.

4.4. Creating formative and summative opportunities for soft skills acquisition

Mapping the programme in terms of opportunities for soft skills acquisition will enable the academic team to identify key moments in the student learning journey to embed activities. These can include formative, summative, group, individual, industry-based, face to face or virtual interactions. As mentioned previously, embedding of soft skills should happen naturally in the context of pre-existing modules that are likely to have knowledge-based or technical-expertise focus. The challenge for the academic team is to identify how specific soft skills can be applied in each module learning experience.

The International Labour Organization identifies four “social and emotional skills” in the Global Framework. Each of these will naturally be developed as part of an undergraduate programme, but could be specifically embedded through strategic learning activities. Table 1 illustrates ways in which each skill might be applied and sets out example student activities for employing the skill. This exercise is a useful tool in identifying links between soft skills as well as generating module-based activities and should be undertaken to map all of the soft skills identified by the institution and/or programme.

▶ **Table 1. Learning activities to support embedding of social and emotional skills (after International Labour Organization *Global Framework on Core Skills for the 21st Century* (2021))**

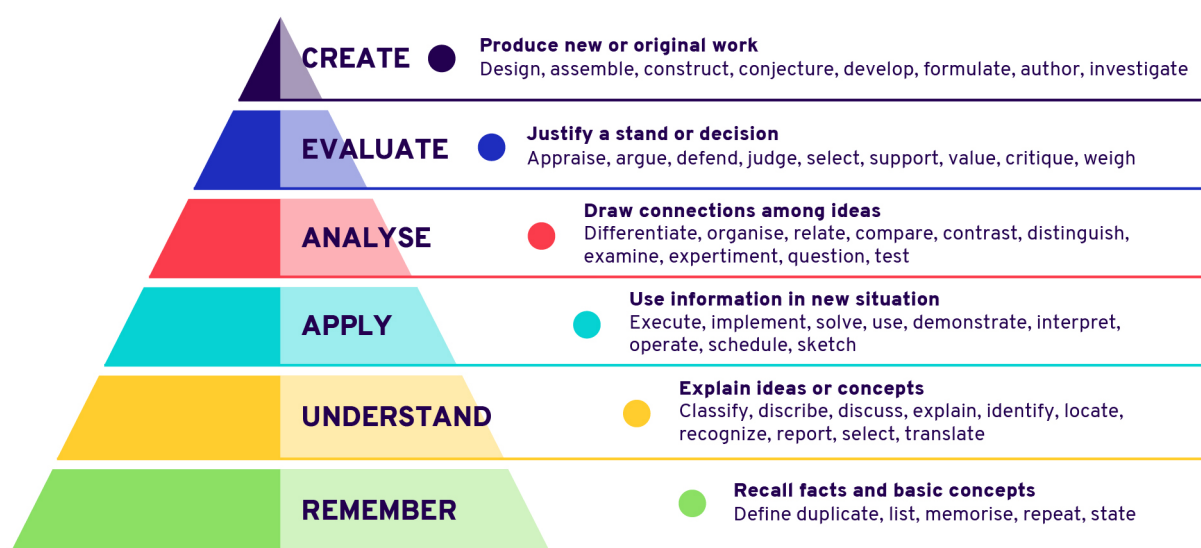
Social and Emotional Skill	Examples of Application	Examples of Learning Activities
Communication	Verbal Non-verbal Visual Listening Written Presentation Online	Writing and delivering a presentation Creating social media content Taking notes at a meeting Producing a business report Creating a CV Writing a LinkedIn post

Social and Emotional Skill	Examples of Application	Examples of Learning Activities
Collaboration and teamwork	Working with peers (small and large groups) Demonstrating leadership Working with stakeholders Establishing group management	Group-based projects Creating a team contract Leading a community outreach activity Capturing the student voice
Conflict resolution and negotiation	Mediation Facilitation and managing expectations Identifying issues Problem solving	Responding to management scenarios Industry-based case studies
Emotional intelligence	Self-awareness Self-regulation Demonstrating intrinsic motivation Empathy Social skills	Reflective log Mentoring of students in lower years Acting as a student ambassador at outreach events

Bloom's Taxonomy is one of the tools that can help teachers to set educational objectives and learning outcomes at the appropriate levels for students at different points in their learning. The taxonomy provides a hierarchical structure that categorises cognitive skills required for learning and critical thinking. It can also help teachers in designing instructional activities and assessment that promote higher-order thinking skills.

► Figure 3.

Bloom's Taxonomy



Source: Blooms Taxonomy of learning

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Designing incremental progression through soft skills activities.

- ▶ Develop at least one soft-skill learning activity to embed within each study programme module, based on the verbs used in Bloom's taxonomy of learning. For example: ask students to apply theoretical concepts to a realistic industry scenario provided by a guest lecturer; or compare similar manufacturing or service processes through two different site visits or case studies from local industry partners.
- ▶ Coordinate and collaborative the design of learning activities to avoid duplication and promote incremental gain in soft skills expertise across modules and study programmes.

4.5. Assessing student acquisition of soft skills

Methods for measuring the acquisition of soft skills will vary depending on the context in which soft skills has been embedded. Demonstration of soft skills is unlikely to be the complete focus of summative undergraduate assessment. For example, a student might be graded on their written communication or presentation skills as part of an assignment, but the assessment marking criteria is likely to place emphasis on the knowledge demonstrated throughout the piece. This is to be expected where soft skills are woven across the fabric of a modular undergraduate programme. If soft skills are to be formally assessed then the academic team should ensure consistency of weighting of this element within the assessment and agree standards for soft skills performance across modules.

If skills have been developed through formative, classroom-based activities then feedback to students may be light touch. In this context, it may be sufficient to give group or individual verbal feedback and to encourage students to reflect on their development using an established model or learning log. Peer assessment can be a powerful tool in assessing soft skills particularly and creating roleplay-based scenarios for students can enable each individual to feedback from a different perspective. It is always important for any feedback on soft skills to be framed constructively through two lenses:

1. what is working well and should be continued
2. areas for future development

Where students have been provided with a learning log, the academic team should encourage regular use of the tool and may even wish to establish "checkpoint" interactions where students can meet with a mentor or academic to reflect on progress to date. Students should be encouraged to capture their development using a variety of media to build a truly meaningful record of their personal professional progress.

SUGGESTED ACTIVITY FOR TEACHING TEAMS:

- ▶ Identify how soft skills will be monitored at module level. Where summative assessment is utilised care should be taken to ensure consistency between modules and markers.
- ▶ Opportunities should be generated to enable peer assessment and the involvement of industry stakeholders and alumni mentors in assessing soft skills acquisition.

4.6. Evaluating the success of embedding soft skills

The acquisition of soft skills is a key aspect of the student learning journey, and a requirement in terms of industry expectations. Whilst some soft skills may be demonstrated and graded through summative assessment it is likely that most soft skills acquisition will happen naturally through engagement in well-crafted modules and programme-wide activity that is informed by and linked to industry. Academic teams should not feel under pressure to formally assess all soft skills development. In fact, to do so will likely have a negative impact on student development and limit creativity both in terms of learning design and student engagement.

The ultimate success of a programme in embedding soft skills will be measured initially in industry feedback and ultimately in graduate outcomes. It is particularly important to regularly capture updates on graduate employment, the Industry Advisory Board should regularly feedback on progress, and monitoring of alumni achievements should be undertaken on an annual basis. Much as students are to be encouraged to engage in reflective practice to support their soft skills development so too should academic teams allow time to evaluate and analyse outcomes and identify further actions for improvement in embedding soft skills into the curriculum.

SUGGESTED ACTIVITY FOR TEACHING TEAMS: Evaluating the delivery of soft skills at module level

- ▶ Create a plan for evaluating the success of embedding soft skills.
- ▶ What developments will be seen in graduate outcomes or industry feedback?
- ▶ How will challenges and changes to industry requirements be responded to?
- ▶ How can successful case studies be utilised to further encourage student recruitment and industry growth?

Name of core skill	ATCS (University of Melbourne, Cisco, Intel and Microsoft 2009)	EU (2007)	ILO (2007, 2013, 2017, 2019)	MGI (2018)	OECD (1999)	UNESCO (2014)	UNICEF (2014, 2017)	WEF (2015)	World Bank (2014)	Australia	Chile	India	Jamaica	Malawi	Philippines	United States Total (16)
Sensitivity to diversity	0	0	0		0	0	0	0								7
Adaptability		0	0	0	0		0	0								7
Time management		0	0	0	0	0	0			0						7
Strategic thinking		0	0	0	0		0	0							0	7
Responsibility / Dependability	0	0		0		0		0							0	6
Initiative and proactive Approach		0	0	0			0	0	0							6
Conflict resolution	0	0	0		0	0									0	6
Systematic inquiry			0	0	0		0								0	5
Cultural awareness (cultural literacy)	0				0	0		0							0	5
Citizenship (civic literacy)	0	0			0	0								0		5
Self-confidence / esteem		0			0	0		0							0	4
Gender sensitivity	0	0				0		0								4
Basic financial literacy		0		0		0	0									4
Assertiveness		0	0		0			0								4
Sensitivity to environment		0			0	0										3
Ability to work under Pressure				0				0			0					3
Positive attitude towards Work		0						0								2
Client orientation				0					0						0	2
Occupational safety																0

Source: ILO (2021, p35), Global framework on core skills for life and work in the 21st century

Advancing social justice, promoting decent work

ILO Jakarta Office

Menara Thamrin Lt. 22
Jl. M.H Thamrin Kav. 3
Menteng, Jakarta Pusat
Jakarta 10250
Telp. 021 3913112

► ilo.org/jakarta