

IEEE P1484.20.2 Working Group
Meeting Agenda

29 March 2021 / 10:00 AM – 11:00 AM (EST)

Webex <https://ieeesa.webex.com/ieeesa/j.php?MTID=m37d0552cdb7860e184ffb13b172b1425>

1. Call to Order
2. Roll Call and Disclosure of Affiliation
Affiliation FAQs:
<https://standards.ieee.org/faqs/affiliation.html>
Signin roster:
<https://docs.google.com/spreadsheets/d/1wLPKj2lu6e92A7GUjIEPPDOdm1gGbzYd9dqvwkORWc/edit?usp=sharing>
3. Approval of Agenda
4. Approval of Previous Meeting Minutes
<https://ieee-sa.imeetcentral.com/p1484-20-2wg/folder/WzlwLDEzMDU0NTg4XQ/WzlsNzQwNDkyNTRd/>
5. IEEE Patent & Copyright Policies
Call for Patents <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>
Copyright <https://standards.ieee.org/ipr/copyright-materials.html>
6. Updates
 - a. The process to move to a finalized standard
7. Action Item Review
 - a. Seeking motion to approve Workgroup draft of Section 3 – Applications (See Attachment)
8. 21st Century Skills – presentation by Charles Fadel
9. New Business
10. Future Meetings
 - a. Notice of Meetings
 - i. (Official) Working Group meetings: Last Monday of each month.
Next meeting April 26, 2021 at 10:00 am EST
 - ii. Review Group meetings: Every Monday at 10:00 am EST except for the last Monday of each month when the Review Group meeting will follow the Working Group meeting.
11. Adjourn

For Initial Vote - Applications for IEEE P1484.20.2 Recommended Practices for Defining Competencies

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Updated March 27 by Steven Forth

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The following table of contents is provided to ease the review process. The standard will have a table of contents but it is unlikely that the IEEE format uses sectional outlines.

Section 3 Applications	3
3.1 Preamble	3
3.1.1 Purpose	3
3.1.2 Scope	3
3.1.3 Benefits	3
3.1.4 Document Structure	3
3.2 Stakeholders (Organizations)	4
3.2.1 Credentialing Organizations	4
3.2.2 Distributors	4
3.2.3 Educational Organizations	4
3.2.4 Employers	4
3.2.5 Governments	4
3.2.6 Individuals	4
3.2.7 Licensing Body	4
3.2.8 Publishers	4
3.2.9 Registries	5
3.2.10 Technology Provider	5
3.3 Applications by Role (Individual)	5
3.3.1 Assessment Designer	5
3.3.2 Assessor	5
3.3.3 Competency Designer	5
3.3.4 Competency Manager	6
3.3.5 Curriculum Developer	6
3.3.6 Faculty Member	6
3.3.7 Guidance Counselor	7
3.3.8 HR Manager	7
3.3.9 Immigration Official	7
3.3.10 Individual	8
3.3.11 Instructional Designer	8
3.3.12 Instructor	9
3.3.13 Learning Content Curator	9
3.3.14 Learning Systems Administrator	10
3.3.15 Manager	10
3.3.16 Mentor	11
3.3.17 Policy Maker	11
3.3.18 Regulator	11
3.3.19 Systems Architect	11
3.3.20 Team Leader	12
3.3.21 Team Member	12

Section 3 Applications

3.1 Preamble

3.1.1 Purpose

This purpose of this section is to represent how various Roles and Stakeholders will benefit from well-defined competencies and the application of this standard.

3.1.2 Scope

This section is limited to defining the roles, stakeholders, and the benefits of using well-defined competencies and the application of this standard. This section does not attempt to define systems or products that might be used to deliver the benefits of using well-defined competencies.

3.1.3 Benefits

This section is intended to help readers of the standard understand the different ways that Competency Definitions and Competency Frameworks are used to achieve individual, team, organizational and community objectives.

3.1.4 Document Structure

Stakeholders are first identified in section 4.2. Applications are then organized to connect the Role of the user, to a stakeholder, to state what the user needs to achieve and why they need to achieve it. They are constructed in the following format:

Name of Application: As a <role> at <stakeholder(s)> I need to <achieve> so that <purpose>.

As an example:

Coach an individual: As a <coach> at an <employer> I need to <advise individuals of potential skills gaps> so that <they can develop the required skills>.

In the case of Individuals, the 'at <stakeholder(s)>' part of the statement may be omitted.

These applications can be used to develop applications for the development of various solutions that use well defined competencies.

3.2 Stakeholders (Organizations)

This standard has been designed to facilitate communications between the following stakeholders:

3.2.1 Credentialing Organizations

“Credentialing Organizations” design and administer credential, certification and certificate programs.

3.2.2 Distributors

“Distributors” are organizations that distribute competency definitions and/or competency frameworks for other individuals or organizations to use.

3.2.3 Educational Organizations

“Educational Organizations” provide teaching, schooling, tutoring, instruction, learning experiences, and training for students. Educational Organizations might be independent or part of a larger organization such as an Employer or Government Agency.

3.2.4 Employers

“Employers” are organizations that employ individuals to perform tasks on a part-time, full-time basis and for specific projects.

3.2.5 Governments

“Governments” are organizations that govern people within an organized community and set policies and provide funding.

3.2.6 Individuals

“Individuals” are people that might be learning or working and who will be affected by the competency definitions and frameworks, directly or indirectly.

3.2.7 Licensing Body

“Licensing Body” is a governing body that issues licenses to perform work or activities based on credentials.

3.2.8 Publishers

“Publishers” are organizations that develop, license, publish and distribute competency definitions and competency frameworks for other individuals or organizations to use.

3.2.9 Registries

“Registries” are organizations that maintain catalogs of approved competency definitions and frameworks.

3.2.10 Technology Provider

“Technology Provider” are organizations that develop, publish, and/or distribute apps, software, software-as-a-service, and technology for other individuals or organizations to use.

3.3 Applications by Role (Individual)

This collection of applications is not meant to be exhaustive. It describes some of the applications where well-defined competencies are used. Roles, not job titles, are described as being individuals who perform tasks. In many cases the Application is the concern of a team and more than one person may be contributing to the role. The following Applications have been sorted alphabetically by Role:

3.3.1 Assessment Designer

“Assessment Designer” is a person who is responsible for developing assessment programs.

- Develop assessments: As an Assessment Designer at a Credentialing Organization, I need to develop valid and reliable assessments that are aligned to well-defined competencies.

3.3.2 Assessor

“Assessor” is a person that assesses the competencies of an individual or team.

- Assess competencies for a credential: As an Assessor at a Credentialing Organization I need to assess an individual’s level of competence so that my organization can provide a clear, understandable, and trustworthy credential.
- Assess individual competencies: As an Assessor at an Employer or Assessment Center I need to assess an individual’s level of competence to determine their potential to develop to roles, and the learning needed, as part of a structured program such as Career Development, Succession Planning or Leadership Development.

3.3.3 Competency Designer

“Competency Designer” is a person who is responsible for the design of well-defined competency definitions and frameworks.

- Document well-defined competencies: As a Competency Designer for an Employer I have the expertise, or access to the expertise needed to document well-defined competencies.

3.3.4 Competency Manager

“Competency Manager” is a person who is responsible for managing, maintaining, and curating a set of competency definitions or frameworks.

- Curation of well-defined competencies: As a Competency Manager at an Employer I manage the repository of competency definition and competency frameworks.

3.3.5 Curriculum Developer

“Curriculum Developer” is a person who is responsible for developing and overseeing the approval of a curriculum for a formal learning or credentialing program.

- Develop Curriculum: As a Curriculum Developer at an Educational Institution I need to design a set of courses that cover the competencies in a framework so that I can create an educational program.
- Validate Curriculum: As a Curriculum Developer at an Educational Institution I need to ensure that a curriculum covers a competency framework so that I can validate the curriculum.

3.3.6 Faculty Member

“Faculty Member” is a person employed by an educational institution who is responsible for teaching students, advising students on academic and career matters, continuous improvement of the institution's curricula, designing courses for the institution, assessment of student achievement, and evaluating transfer credit from other educational organizations.

- Communicate competencies to others: As a Faculty Member at an Educational Institution, I need to be able to effectively communicate the competencies taught in a program or specific course to prospective students, industry partners, and others.
- Justify revised outcomes: As a Faculty Member at an Educational Institution, I need to identify the competencies needed by prospective employers in order to revise and update existing course materials.
- Advise students: As a Faculty Member at an Educational Institution, I need to understand the needs of constituent industries in order to advise students related to prospective internships, research opportunities, and career paths.
- Develop new elective courses: As a Faculty Member at an educational institution, I need to identify new skills and behaviors necessary for students to learn in order to meet the needs of local industry.
- Develop summative assessment mechanisms: As a Faculty Member at an educational institution, I need to develop summative assessment mechanisms which properly measure the attainment of student outcomes relative to the courses being taught and the requisite competencies of the institution's constituents.
- Equivalence of credentials and courses between institutions: As a Faculty Member acting in an administrative capacity at an Educational Organization I need to be able to judge the equivalence of credentials, courses, and outcomes between other Educational Organizations and my own, so that I can decide if the student can be exempt from studying subjects that they already know and understand.

- Provide credit based on prior experience: As a Faculty Member acting in an administrative capacity at an Educational Organization I need to assess a person's prior learning so that I can provide a student credit for prior learning, evidence of skills, experience, credentials, and qualifications.
- Use competency models to develop alignment between learning and industry needs: As a Faculty Member at an Educational Organization I need to align with industrial partners so I can incorporate their needs into the educational organization's courses.

3.3.7 Guidance Counselor

"A Guidance Counselor" provides individuals with academic, career, and college advice and assists with academic planning for students.

- **Aid individuals in career exploration:** As a Guidance Counselor, I need to understand the competencies necessary for different careers in order to assist students in developing an appropriate program of study to obtain the correct educational preparation for a career.

3.3.8 HR Manager

"HR Manager" is a person responsible for workforce planning, organizational design, learning and development to meet the needs of the organization.

- Create and maintain job roles definitions: As an HR Manager at an Employer I need to create job descriptions for different roles so that there is a common understanding for the competencies required for the role.
- Identify competency gaps: As a HR Manager at an Employer I need to compare supply, demand, and project potential shortages of competencies to meet the needs of the organization so that linkages and patterns can be identified to inform executive and management teams and develop recruitment and training initiatives to resolve issues.
- Achieve strategic alignment: As a HR Manager at an Employer I need to design the organization reporting and accountability structures to align the organization with its strategies and maximize the use of competencies so that reporting and accountability structures are clear and to develop recruitment and training initiatives to meet the needs of the organization.
- Maintain competency definitions and frameworks: As a HR Manager at an Employer I need to develop, change, and retire competency definitions and frameworks to maintain alignment with the equipment and systems in use, context and performance required. so that it is clear for everyone to understand the competencies required to perform.
- Use competencies as an instrument to create change: As a HR Manager at an Employer I need to introduce and leverage competencies so that I can identify and reinforce the culture and competencies needed for goal achievement.

3.3.9 Immigration Official

"Immigration Official" is a person that helps manage the flow of non-citizens into a country.

- Recognize foreign work experience, credentials, and qualifications: As an Immigration Official at a Government I need to analyze an individual's experience, credentials, and qualifications so that I can see if they meet the requirements of the same or a similar occupation in the destination country.

3.3.10 Individual

“Individual” is a person that needs to understand their own skills and competencies.

- Plan my career: As an Individual I need to understand the competencies required for different career paths so that I can plan my learning and align it with my career goals.
- Self assess: As an Individual I need to observe and reflect on my levels of competency so that I can sustain or improve my competence by developing experiential-expertise or access specific education or training.
- Plan my education: As an Individual I need to understand the competencies required to support my chosen career path so that I can plan my learning and align it with my career goals.
- Understand competencies needed for a new role: As an Individual at an Employer I need to see what competencies are needed for a new role I am interested in so that I can see if I am suitable for the role.
- Align with expectations: As an Individual at an Employer I need to have a clear, succinct definition of competencies so that I can complete the necessary training, acquire skills, and continuously improve to be a competent, productive, and successful employee.
- Understand mutual recognition agreements: As an individual, I need to understand the equivalency of my credentials with local requirements for credentials.

3.3.11 Instructional Designer

“Instructional Designer” is a person that helps organizations develop and implement learning plans and courses.

- Design training and learning experience: As an Instructional Design Curriculum Developer at an Educational Organization I need to design courses and programs so that they align with workforce demands.
- Document the competencies being taught in a course: As an Instructional Designer at an Educational Organization I need to provide documents defining the competencies being taught in a course so that students and instructors share a common understanding on the content of a course.
- Document the competencies required to perform on-the-job: As an Instructional Designer at an Employer I need to provide documents defining the competencies required to perform on-the-job so that employees share a common understanding of the levels of competence required to perform on-the-job.
- Document evaluation method: As an Instructional Designer at an Educational Organization I need to document the evaluation methods to be used to evaluate competencies being taught so that students understand how they will be evaluated.
- Document fair, valid, and reliable assessments: As an Instructional Designer at an Educational Organization I need to document the fair, valid, and reliable assessment

methods to be used to evaluate competencies being taught so that our organization uses fair, valid and reliable assessment methods.

- Provide effective evaluation methods: As an Instructional Design Curriculum Developer at an Educational Organization I need to document proof that appropriate evaluation methods have been selected to evaluate competencies being taught so that my organization evaluates students fairly and passes any inspections required for accreditation.
- Ensure alignment with workforce needs: As an Instructional Design Curriculum Developer at an Educational Organization I need to ensure the course curriculum aligned with the workforce needs so that students develop useful competencies and the workplace has access to the competencies required to achieve its mission.
- Align to needs: As an Instructional Design Curriculum Developer at an Educational Organizations I need to map competencies needed by industry to course learning objectives and assessment outcomes so that provide clarity for students and organization's partners showing the alignment of courses with industry needs.

3.3.12 Instructor

“Instructor” is a person that provides instruction to individuals and groups. Teachers and faculty members provide instruction and are included under this term.

- Evaluate pre-existing knowledge and skills: As an Instructor at an Educational Organization I need to determine if a student has adequate pre-requisite knowledge from other courses or training programs so that I can determine if the student has adequate baseline knowledge to be successful in a future course.
- Develop assessments: As an Instructor at an Educational Organization I need to determine what level of attainment I need to use so that I can develop effective and relevant assessment mechanisms for my outcomes.
- Communicate competencies being taught: As a Instructor at an Educational Organization I need to communicate the goals of a curriculum to students so that students understand the curriculum, the competencies being taught and what they need to achieve.
- Demonstrate that evaluation methods are used consistently: As a Instructor at an Educational Organization I need to prove that evaluation methods documented for the course are being used consistently so that My organization evaluates students fairly and passes any inspections required for accreditation.

3.3.13 Learning Content Curator

“Learning Content Curator” is a person responsible for administering the catalog of learning opportunities.

- Develop course catalog entry: As a Learning Content Curator at an Educational Institution I need to determine the value proposition for a course including the skills to be taught and to what level so that I can write an appropriate course description and catalog entry.

- Catalog learning resources: As a Learning Content Curator at an Educational Organization, Publisher or Employer, I need to describe many types of learning resources so that I can write an appropriate learning resource description and prepare a catalog entry.

3.3.14 Learning Systems Administrator

“Learning Systems Administrator” is a person responsible for administering learning systems.

- Enter competency definitions: As a Learning Systems Administrator at an Employer I need to enter competency definitions and frameworks into a learning system so that I can better meet the learning and performance needs of the Employer.

3.3.15 Manager

“Manager” is an all encompassing term for a person responsible for managing people and the tasks that they perform. Organizations might refer to managers by other names such as leaders, officers, etc., however, the User Stories for those job titles are essentially the same as documented here. Managers also coach employees and User Stories associated with coaching are detailed under the role of Coach.

- Assess workplace performance: As a Manager at an Employer I need to assess an individual's levels of competence and performance so that employees meet or exceed the performance required for the role.
- Find people for a team: As a Manager at an Employer I need to find individuals for a team that have the combination of competencies to work together effectively so that the team has the competencies required to efficiently complete the tasks required to complete their mission.
- Allocate budget to resolve skill gaps: As a Manager at an Employer I need to allocate training budget so that competencies can be developed to meet the current needs of the organization.
- Allocate budget to improve performance: As a Manager at an Employer I need to allocate training budget so that competencies can be developed to improve performance.
- Allocate budget for future readiness: As a Manager at an Employer I need to allocate training budget so that competencies can be developed to meet the future needs of the organization.
- Manage training budgets: As a Manager at an Employer I need to identify competencies required, and competencies available to analyse skills gaps to be resolved so that training sessions and learning experiences can be arranged efficiently.
- Meet regulatory requirements: As a Manager at an Employer I need to identify all workers who have achieved the level of competency required so that I can prove that we are conformant with regulatory requirements.
- Manage competencies: As a Manager at an Employer I need to observe individual's, and team's performance of current tasks to identify skills gaps for each task, and plan to resolve so that I can ensure that individuals or the team meets the minimum competency levels required to perform the essential tasks.

- Support the development of competencies: As a Manager at an Employer I need to observe individual's, and team's performance to identify educational activities require to ensure they are ready for future tasks so that I can plan education, training, and learning experiences to sustain and build the team's readiness to perform effectively in the future.
- Assess competencies: As a Manager at an Employer I need to assess employee's competencies so that I can provide authentic feedback, coaching and prescribe learning experiences if required.

3.3.16 Mentor

"Mentor" is the person that mentors individuals and teams to support learning and performance.

- Advise individuals on ways to resolve their skill gaps: As a Coach at an Employer I need to understand the potential skill gaps that an individual might have in their current role or perform in a new role so that I can advise them on ways to resolve those skill gaps.
- Advise individuals on career paths: As a Coach at an Employer I need to understand the skills and competencies required for a job role, team role or ad-hoc role so that I can advise them on the career paths available to them and how to pursue them.

3.3.17 Policy Maker

"Policy Maker" is a person employed by local, state, provincial, or national government to develop policies related to education and workforce development.

- Analyze workforce and set policies: As a Policy Maker at a Government I need to compare supply, demand, and project potential shortages of competencies across occupations and sectors so that linkages and patterns can be identified to inform workforce policies and funding.
- Set immigration policies: As a Policy Maker at a Government I need to determine the competencies, experience, credentials, and qualifications required to allow foreigners to work in, or become citizens of, the community, so that there are clear policies to allow foreigners to work in, or become citizens of, the community.

3.3.18 Regulator

"Regulator" is a person employed by local, state, provincial, and national governments to administer and enforce policies and regulations.

- As a Regulator working for a Government agency I enforce policies and regulations and so need to understand the competencies, experience, credentials, and qualifications required to grant licenses to perform work or activities.

3.3.19 Systems Architect

"Systems Architect" is a person involved in the design, development, and deployment of competency systems.

- Design and architect a competency management system: As a Systems Architect at an Employer, Publisher, or Technology Provider I need to define, develop, and maintain a

competency management system for users to maintain competency definitions and frameworks.

- Integrate with other systems: As a Systems Architect at an Employer, Publisher, or Technology Provider I need to have access to well-defined competencies to integrate these with other systems which might include but not be limited to systems for assessment, formative feedback, intelligent tutoring, and performance management.

3.3.20 Team Leader

“Team Leader” is a person responsible for assembling, motivating, and managing a team and who is accountable for the team’s results.

- Scope a team: As a Team Leader at an Employer I need to understand the skills and competencies needed for the team so that I can build a team with the necessary skills and competencies to deliver the project goals.
- Build a team: As a Team Leader at an Employer I need to find team members with the skills and competencies needed for the team so that I can build a team with the necessary skills and competencies to deliver the project goals.
- Lead a team: As a Team Leader at an Employer I need to understand the skills and competencies of the team members so that I can assign team members to tasks.

3.3.21 Team Member

“Team Member” is a person working closely with a group of other Individuals who have a shared responsibility for the team’s results.

- Join a team: As a potential Team Member at an Employer I need to understand the skills and competencies needed for the team so that I can decide if I will be able to make a meaningful contribution.
- Understand complementary skills: As a Team Member at an Employer I need to understand the skills of other Team Members and how those skills complement my own skills so that I can understand who I should work with and how I should work with them so that I can be more effective in the team.