

## The P4P Digital Assessment ECO system (White paper)

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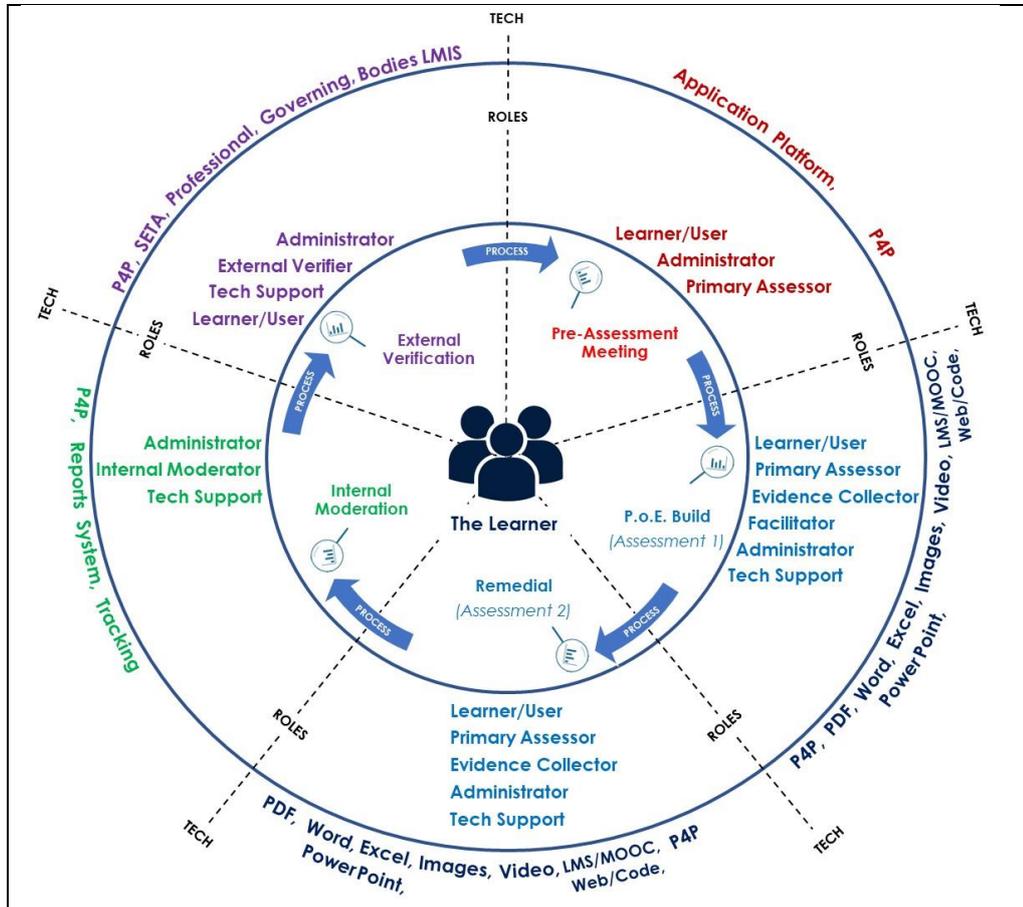


Image 1: The P4P e-Assessment ECOsystem.

Contact Us to assist you in digitizing your Assessment Process.

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## GAMIFICATION What is a Digital Ecosystem?

A [digital ecosystem](#) is comprised of stakeholders, systems, and an enabling environment that together empower people and communities to use digital technology to access services, engage with each other, and pursue economic opportunities.

## DEVELOPMENT How does this apply to e-Assessment?

The e-Assessment ECOSystem is comprised of the stakeholders, systems and networks required to successfully implement, measure and report on end-to-end process of assessment of learning. Providing the user/learner/candidate all relevant support: to register, build evidence, be assessed and ultimately receive their end of assessment goal (qualification, designation, competence, credits, CPD points etc...)

## PERFORMANCE Why the "P4P e-Assessment ECOSystem" model:

P4P has been pioneering the (digital) e-Assessment space for more than 10 years. We have come to learn the main challenges Skills Development Providers / Training Providers (#SDP) are experiencing in **applying** the assessment process. From this we have decoded the foundation of e-Assessment, the cornerstone where the greatest chance of success is, this is at the conversion of assessment content into a e-Assessment framework which enhances the digital process.

Whilst most #SDP's are focusing on upskilling the end user/learner/candidate on how to use the new digital systems, they are neglecting to plan for and continually upskill all the role players. Creating poor structures to support the entire e-Assessment ECOSystem.

From my experience my goal in this paper is to explore and offer solutions to these challenges and provide some ideas on how to plan for implementation of your specific e-Assessment of Learning Process strategies.

To illustrate the P4P e-Assessment ECOSystem, I have created two different images that you will see as you read through the paper:

### 1. The P4P e-Assessment ECOSystem.

This is the image on page 1, which has been explored through this paper, explaining each component of the ECOSystem in more detail. This underpins the **Process of Assessment**, which ultimately impacts the Principles of Assessments.

### 2. Detailed process of Assessment image.

This is a process flow that demonstrates the how assessment is conducted end to end, in any form of assessment.

These images are divided into colours to keep the discussion focused on a specific area of e- Assessment, and this will also enable you to shift from your current "hard copy" or email based assessment into a full digital experience in a step-by-step method.

#### Colours:

**Red:** Pre-Assessment Engagement

**Blue:** Assessment Engagement

**Green:** Moderation of Assessment

**Purple:** Verification of Moderation



The following topics are discussed within this paper (with the goal to create an integrated and user experiential ECOSystem online)

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## ASSESSMENT CONTEXT

(what is it and why it is important, how to prepare)

1. Assessment [Mirriam Webster dictionary](#): the action or an instance of making a judgment about something: the act of assessing something : APPRAISAL.

This is directly linked to a standard (measure) of some kind. In your journey towards doing skills development for business in a [\\*4th Industrial Revolution](#), assessment needs to go digital, as the performance of the employee can no longer wait for 3 – 6 months for review. For this to be achieved, the employee's applied skills (aka performance) need to be reviewed weekly / monthly IN the workplace. When this is done with the assistance of technology, this is known as an e-Assessment.

An e-Assessment is any type of assessment that has an electronic component and incorporates one, or more, of e-testing, e-Portfolios, and e-Marking.

When shifting your assessment strategy to a digital (or hybrid) approach you need to consider the purpose of the assessment and the tools that you will use. If you use a **\*\*factoring approach** there are really only 4 common factors in assessing the competence of a person, with many derivatives and options of the tools to use and outcomes required.

**\*4th Industrial Revolution:** (conceptualizes rapid change to technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and smart automation.)

**\*\*Factoring Approach (Greatest Common Factor):** Consider all the colours in a forest, 10000's of them, but they are all there based on the factor of 3 primary colours Red, Yellow, Blue.

Factor	Defined
<b>Diagnostic / RPL</b> (Assessment <u>FOR</u> Learning)	<p><b>Measuring:</b> <i>what is currently understood, and what can be demonstrated, to establish if there is a performance or skills gap.</i></p> <p>The gap analysis, providing the learners/user/candidate with the opportunity to prove what they CAN already do and what they have already learned in relation to the assessment criteria (Summative assessment.)</p> <p><b>End state:</b> Either:</p> <ol style="list-style-type: none"> <li>Achieve the full qualification/designation/competency. <i>Action:</i> Nothing more, they get the piece of paper (<i>Certificate</i>).</li> <li>Achieve NONE of the qualification/designation/competency. <i>Action:</i> attend the full programme in a training environment.</li> <li>Achieve SOME of the qualification/designation/competency. <i>Action:</i> attend ONLY the relevant training that will close the gaps, and <i>receive</i> from the #SDP/Professional Body, the credits and part qualifications for where they have demonstrated competence.</li> </ol>
<b>Formative</b> (Assessment <u>AS</u> Learning.)	<p><b>Measuring:</b> <i>the forming knowledge/understanding and skills.</i></p> <p>Learners are involved in the learning process, and they monitor their own progress, through questions and practice skills.</p>

PERFORMANCE	DEVELOPMENT	GAMIFICATION	<p>They use self-assessment and facilitators/assessor led feedback to reflect on their learning, consolidate their understanding and work towards the summative assessment goals.</p> <p><b>End state:</b> Prepared for the summative assessment.</p>
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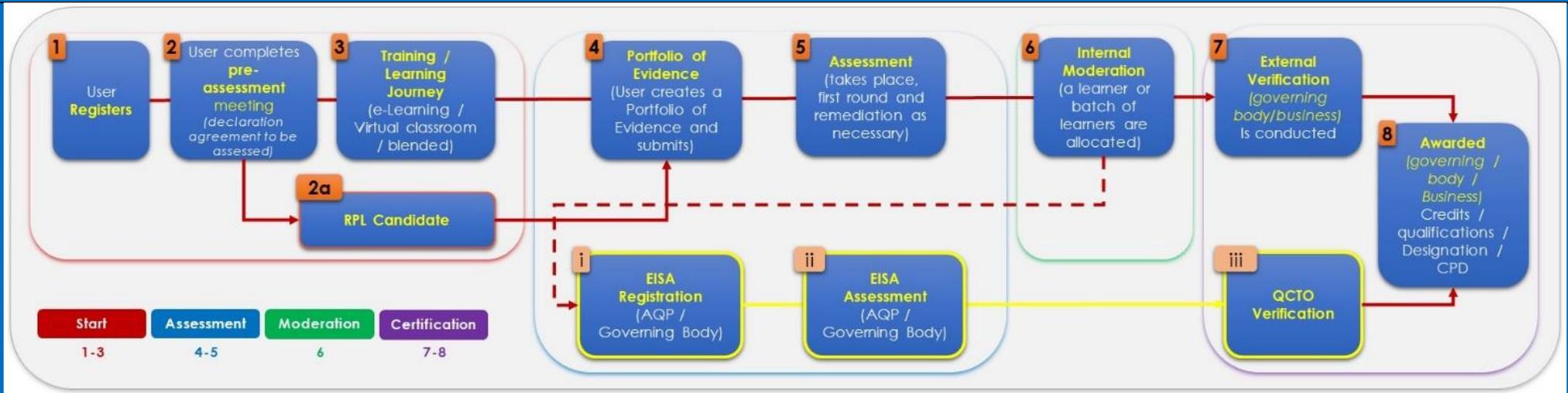


PERFORMANCE DEVELOPMENT GAMIFICATION	<p><b>Summative</b> (Assessment <u>OF</u> Learning)</p>	<p>(Measuring the application of competence in the place where the competence needs to be applied.)</p> <p>Learners should drive the post learning process; their competence needs to be measured after their training in as realistic environment as possible.</p> <p>The summative assessment will require that the learner demonstrate Knowledge (written) Attitude (desire) AND Skill (application) of the learning content.</p> <p><b>End state:</b> to build a portfolio of demonstrated competence against the assessment criteria.</p>
	<p><b>Post Assessment Review</b> (Assessment <u>FROM</u> Learning)</p>	<p><b>Measuring:</b> the experience of the assessment process with the different role players.</p> <p>This is the post-assessment step, where the learner and the assessor reflect on the whole process. What did they like, not like, understand, not understand, resonate with and disassociate with? This is a testing time for assessors as it happens AFTER the summative assessment is complete and the learner gets to express their feelings in a truthful way that will not affect their results. This opens the discussion for improving the process by the provider.</p> <p><b>End state:</b> the role-players give their thoughts and perceptions of the assessment process. Enabling the #SDP / Training Provider to increase their service offering and positions an updated direction to improve end-user experience.</p>
<p>2. Assessment Domains</p>	<p>Assessment needs to be conducted differently across the skills domain which are well detailed in <a href="#">blooms taxonomy</a>. <u>Cognitive</u> and <u>interpersonal</u> domains are predominantly measured through the current internationally accepted examination system. However, 4IR requires that we also measure <u>applied skills</u> in a real workplace environment, taking the "safety" of the "simulated learning space" away, and ensuring that the learner can perform live (in the workplace). The Three domains that need to be assessed:</p>	
	<p><b>Cognitive Skills</b> (Head)</p>	<p>Assessing knowledge and comprehension (e.g., understanding scientific concepts, explaining understanding of instructions, describing /exploring different theoretical methods in new situations to solve problems (thinking or mental skills);</p>
	<p><b>Interpersonal Skills</b> (Heart)</p>	<p>Assessing the interpersonal domain and fit to a specific job role / competency etc... This can be done through psychometric assessments, interactive role playing, combined with appropriate feedback can be used to change attitudes and behaviours.</p>
	<p><b>Psychomotor Skills</b> (Hands)</p>	<p>This is the assessment of demonstrated skills (that requires a human assessor to review the portfolio and make an assessment judgement.) Demonstrated by physical skills such as movement, coordination, manipulation, dexterity, grace, strength, speed—actions which demonstrate the fine or gross motor skills, such as use of precision instruments or tools, and walking. Involving the acquisition of physical perceptions and movements (e.g., playing sports, serving customers, taking phone calls or driving a car).</p>

<p>3. Portfolio of Evidence. (P.O.E.)</p>	<p>A portfolio of evidence is a collection of a person's work compiled from consistent application of your skill over a period of time (such as: videos, art, papers, tests, performance reviews etc...). This is then used for assessing that person's performance or progress.</p> <p><b>Types of Evidence that can be used.</b></p> <ul style="list-style-type: none"> <li>- Videos (skills demonstration).</li> <li>- Audio (voice notes).</li> <li>- Handwritten documents.</li> <li>- Typed documents.</li> <li>- Digital design. (Webpages, coding, working prototypes etc..).</li> <li>- Pictures/images.</li> <li>- Presentations.</li> </ul>
<p>4. When To Assess</p>	<p>There are many reasons WHY assessment should take place. Here are some examples of when assessment is necessary to provide a judgement of the end users ability to perform:</p> <p><b>1. Education Space:</b> Qualifications, Part Qualifications, Short courses, Credits, Unit Standards, recognition of Prior Learning (RPL)</p> <p><b>2. Business Space:</b> Competencies, Recruitment, Promotions, Performance reviews, Probation periods, Induction programmes, inhouse training concepts, on-job-coaching</p> <p><b>3. Professional Bodies Space:</b> Designations, Continuous Professional Development (CPD).</p>



## ASSESSMENT PROCESS

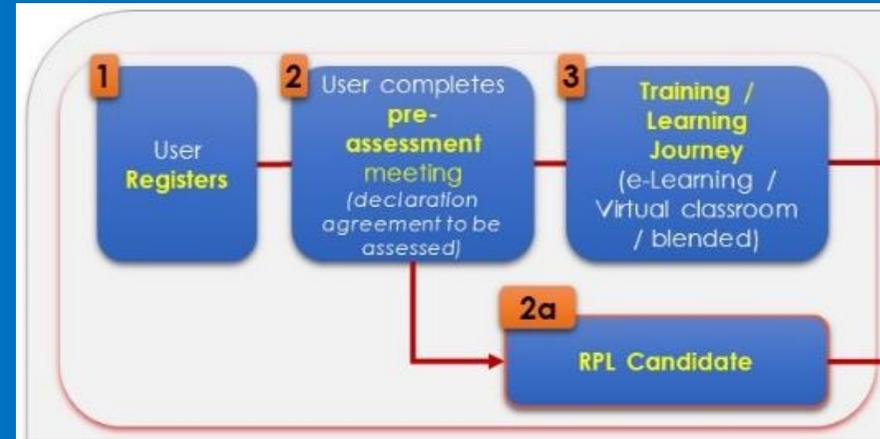
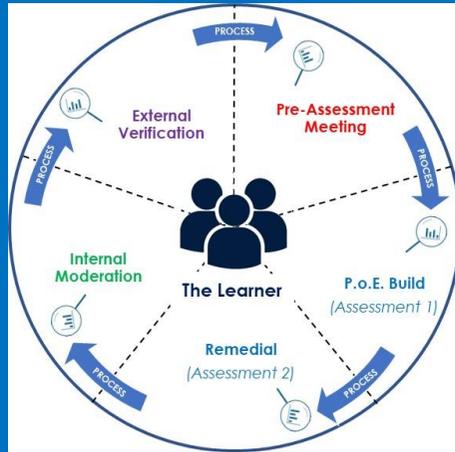


\* Image 2: Detailed process of Assessment

This is the assessment process that is used in different forms based on the application of assessment. So, for skills development that is credit / qualification generating, or for **C**ontinuous **P**rofessional **D**evelopment related assessments, this is the process that is followed. The role players described will have different names or titles, but the process remains.

When conducted performance reviews or recruitment or Psychometric assessments this process is still followed but perhaps ends at point 6. Either way this process is the foundation of the ECOSystem. The ECOSystem role players are defined from this process, and their roles described and measured.





\* Image 3: ECO view of Assessment Process

\* Image 4: Assessment Process Part 1: Start

## THE ASSESSMENT PROCESS

### Pre-Assessment (Phase 1)

1. The learner registers for a qualification / designation / CPD / Job Role analysis. They get added to any technology or registers that the company has.
2. The learner attends a pre-assessment declaration meeting – that ensures that the user is informed of their rights in the assessment process, and they confirm their agreement to be assessed, what they are being assessed against and that they are happy with their assigned primary assessor.
  - 2a. If the learner is a **Recognition of Prior Learning (RPL)**<sup>1</sup> candidate, they will skip point 3 and more directly to Point 4. *The learner/employee will be allocated to a learning journey towards achieving their required outcome. (Qualification, CPD, Designation Credits, Job role etc...)*<sup>4</sup>. *The learning journey can be completed through many different methods (e-learning, MOOCS, games, Classroom training, virtual training etc...)* and the Learner/Employee will complete the cognitive<sup>2</sup> and/or interpersonal<sup>2</sup> assessments.
3. The Portfolio of Evidence (P.o.E.)<sup>3</sup> This is one of the most important steps for the user. They must create a Portfolio demonstrating their competence (knowledge, understanding and skills<sup>2</sup>) and provide this P.O.E. to the primary assessor for review.
  - The P.O.E. MUST have the evidence to show the competence of the learner in all relevant modes<sup>2</sup>, (so Video and Audio becomes essential if the assessor cannot be present in the place of demonstration).
  - The learner will then do a practical demonstration of skill (psychomotor skills) and create evidence of their application live in the workplace. (Video, audio images etc...)
  - The Learner loads this evidence into P4P e-P.O.E. folder. Followed by a self-assessment (reflection) on the content and assessment criteria.

Click here to do a Maturity Analysis



	<p><b>Assessment Process (Phase 2)</b></p> <p>4. The learner's portfolio will then be assessed<sup>1</sup> by the primary assessor. The assessor reviews the evidence and will make a judgement of the learner's competence. There are 3 outcomes that can be achieved by the learner:</p> <ol style="list-style-type: none"> <li><b>Competent:</b> achieved the standard.</li> <li><b>Not yet competent:</b> did not achieve the standard but has a <u>remedial plan</u>. The learner creates new evidence and then is re-assessed.</li> <li><b>Not Competent:</b> The learner has tried several times to demonstrate competence but cannot. A next steps plan to be created and discussed.</li> </ol> <p>5. The learner conducts a post assessment review rating of the entire process.</p>	<p><a href="#">Click here to do a Maturity Analysis</a></p>
	<p><b>Internal Moderation (Phase 3)</b></p> <p>6. To ensure that the principles of assessment are achieved there is an internal moderation (<i>this too is an assessment</i>). The Internal moderator will review 25% of the learners in the batch and track the assessment process, they will either <u>uphold</u> the assessment, or if the principles of assessment were not reached, the Internal Moderator will <u>overturn</u> the assessment with remedial work that needs to be changed.</p>	<p><a href="#">Click here to do a Maturity Analysis</a></p>
	<p><b>External Verification (Phase 4)</b></p> <p>7. If there is a final assessment that takes place by the governing body, head of Business, SETA, or owner of the standard that is being assessed. The external verifier will ensure that the Principles of Assessment from the Internal Moderation group has been upheld.</p> <p>8. The Governing Body / SETA / business / Professional body Certification/Designation/Credits/Job Role etc... will be awarded.</p>	<p><a href="#">Click here to do a Maturity Analysis</a></p>



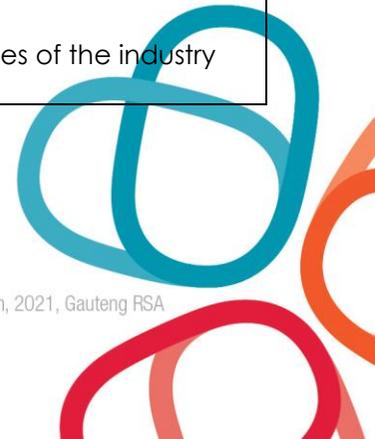
## ASSESSMENT ROLE PLAYERS



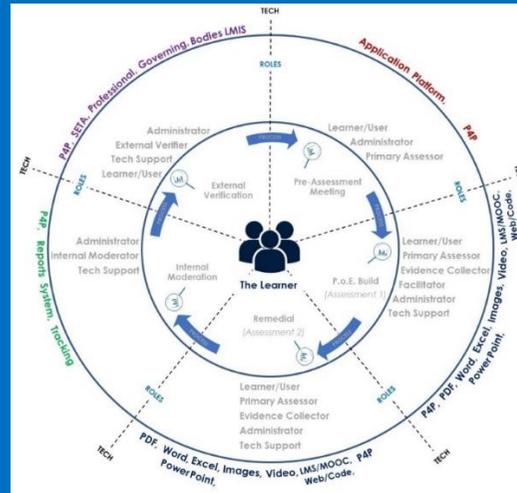
\* Image 4: ECO view of Assessment Role Players

<p><b>Learner / User / Candidate</b></p>	<p>This is the person that want to achieve a qualification / certificate / designation / competency etc. They will be a member (or want to become a member) of a professional body, gain recognition for a job-role, or be in the process of a learning journey towards a competency, certificate, credit or qualification. They need to build a P.O.E. to provide to an assessor to be assessed, and then sow off their achievement to the world of importance to them, for recruitment, growth, status etc... <i>Image 4 shows their role at each step of the process.</i></p>
<p><b>Primary Assessor</b></p>	<p>This is a person who is a subject matter expert in the outcomes (assessment criteria) of the assessment required. They must have an experiential understanding of the Assessment Principles to assess a Learner / User / Candidate. They should contract directly with the Training Provider, Skills Development Provider, Business/company (i.e., they will be a supervisor, manager etc...) Professional body (i.e., a designated member), Governing Body (i.e., registered with the relevant SETA), and this will help build their Credibility. They will also be on a lifelong learning journey on how to transition from current Assessment practices into Digital assessment practices.</p>
<p><b>Evidence collector</b></p>	<p>This is a person (but could convert to an AI tech into the future) whose role is to assist the learner in collecting their evidence. They need to be able to see the assessment criteria, understand the assessment and evidence requirements, and have access to the learners P.O.E. whilst the learner is building it. They must be able to use the relevant / different technologies to assist the learner (i.e, camera, computer, phone, paper, pen etc...). Once the assessment is complete, this role no longer needs access to the e-P.O.E. and can be removed from an assessment technology.</p>

<b>Tech Support (UX)</b>	This is a technology development team who must have an understanding of the <i>User Experience</i> of a system/platform. They are pivotal in the maintaining and reviewing of the technology that is supporting the process of assessment. Their role is to question, and guide the new functionality requested (by the other role players), review the user behaviours of the current functions, and then decide how to make relevant changes for a better End User experience.
<b>Tech Support (Code)</b>	This is the technology team that works with the UX team to analyse and build new functionality.
<b>Admin</b>	The Role of the Administrator is to govern the assessment process in terms of the project and deadlines. They are the central point of adding users, tracking payments, assigning assessors, internal moderators and requesting external verifications. They will check the technologies to ensure that the assessment is complete and that the learners are progressing, and then apply risk mitigation strategies for the learners who are not achieving. The admins are also responsible to ensure that the learners have added all relevant legislative documentation to the e-P.O.E. for a smooth and seamless assessment process.
<b>Internal Moderator</b>	This is a person who understands the assessment process and the Principles of Assessment. They also know how to analyse and review if the assessment process has been applied within the principles and can make judgments on the validity of the Assessment result of the learner/user/candidate. They remain outside the assessment of the portfolio judgment, this way they can ensure that the Assessment Process was achieved without bias. <i>In some cases, the Internal Moderation could be used to issue certification / designation / competence / awards, depending on the Company/business/governing body.</i>
<b>External Verifier</b>	This role is to track, govern and provide the certification to the Learner/User/Candidate, and ensure that the permission is given for the results to be loaded into a National Records Database. This person will review the Internal Moderation process and ensure that all the relevant practices of assessment have been upheld to the standard of the governing body.
<b>Professional Body/legislative Body/Etc...</b>	These bodies have been created by either governments or groups of people in a specific industry that want to create a co-accepted set of governing standards for that industry. These standards are then collated to form collectively agreed: Designations, Qualifications, Credits, Competencies, and other requirements. Businesses subscribe to a professional body, and they then also play the role of a governing body because they outlay the performance contracts (job description, Job roles, KPA's KPI's etc...) for their employees.  The role of these bodies is to govern the assessment criteria for the Designations, Qualifications, Credits, Competencies of the industry and then upskill and manage the roles of the External Verification.



## e-ASSESSMENT TECHNOLOGIES



\* Image 5: ECO view of Assessment Role Technology

<p><b>Different technologies to be used</b></p>	<p>The assessment process is created to assess the competence (<i>knowledge and understanding, skills and desire</i>) of the learner/candidate. For this to be a reality they will create a Portfolio of Evidence. And this is where technology becomes the pivotal shift in the process. There are so many technologies on the market that can be used, and here is some examples of the tech that will satisfy the different learning domains:</p>	
<p><b>Cognitive Domain:</b></p>	<p>This domain includes content <u>knowledge</u> and the development of <u>intellectual skills</u> using recall or recognition of specific facts and concepts that serve developing intellectual abilities and skills. Mostly used in the education system and achieves limited success in recall of content after short periods of time.</p> <p><b>Knowledge and understanding measures:</b> Recall of data and Comprehension (Understanding). E.g., Recite a policy, Quote prices from memory to a customer, Knows the safety rules.</p> <p><b>Assessment will use key words like:</b> defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.</p>	<p><b>Technology to Assess the Cognitive Domain:</b> An e-learning LMS tech.</p>

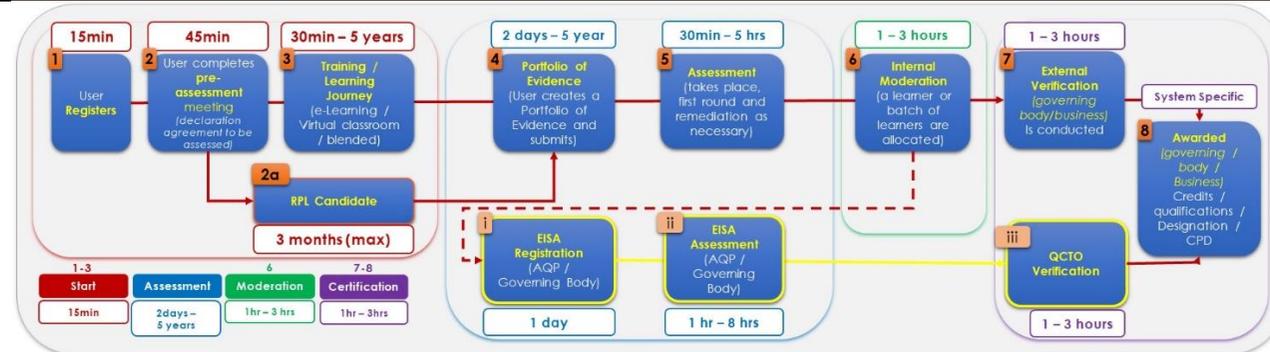
<p><b>Interpersonal Domain:</b></p>	<p>The Interpersonal domain includes feelings, values, appreciation, enthusiasms, motivations, and attitudes. Active participation on the part of the end user/learner/candidate tracking and reviewing how they react to a particular phenomenon. In the measuring of this domain the outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation). Internalizing values (characterization) and measuring how the value system that controls their behaviour and if the behaviour is pervasive, consistent, predictable, and most importantly, characteristic of the learner.</p> <p>Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).</p> <p><b>Interpersonal Domain measures:</b> Listening to others with respect and learning more about self in the context of the workplace or landscape where the person is required to engage within.</p> <p><b>Assessment will use key words like:</b> asks, answers, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, use, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.</p>	<p><b>Technology to Assess the Interpersonal Domain:</b> Psychometric Assessments Technologies, Personality and/or Preference Inventories and Personality Types Indicator platforms that are created to measure cross interpersonal actions. ..</p>
<p><b>Psychomotor Domain:</b></p>	<p>The psychomotor domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution of Perception: The ability to use sensory cues to guide motor activity. This ranges from sensory stimulation, through cue selection, to translation.</p> <p><b>Psychomotor Domain measures:</b> Knows and acts upon a sequence of steps in a manufacturing process. Recognize one's abilities and limitations. Shows desire to learn a new process (motivation).</p> <p><b>Assessment will use key words like:</b> begins, displays, explains, moves, proceeds, reacts, shows, states, volunteers, chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects.</p>	<p><b>Technology to Assess the Psychomotor Domain:</b> e-Portfolio (e-P.O.E.) platform, Videos, audio files, images, PDF, digital observation checklists, Augmented Realty, Simulations.</p>



## e-ASSESSMENT

### TIME FRAMES

What is the time frame of assessment?  
Why are they important?



**Image x:** Assessment process time frames.

This is the approximate timing to allocate for assessment in the digital space. There are more than enough platforms online to change the way the learners / candidate should register – paper should no longer be a necessity. The digital process can incorporate all required needs, signatures, etc, and this is the minimum space that all providers of assessment should be at.

- In the digitised assessment landscape, credibility is essential at each step of the assessment process for all the role-players. This includes all assessment practices from on-boarding through tracking, reporting mechanisms and ensuring the management of all expectations.
- At the beginning of the assessment process (User Registration & Pre-Assessment meetings) dates and time frames of assessment need to be agreed upon and remain in line with the specific providers **assessment policy**.
- Learners should be expected to load their evidence into their e-P.O.E.'s before that specific assessment date.
- Assessors should be required to block time in their diaries to conduct assessments on agreed specific dates.
- When this is the case, all the role-players increase their trust in the process, and learners who submit their evidence receive immediate feedback on their progress and feel that their work is being honoured. Learners who do not submit, also receive feedback, but are not provided any special treatment because they submit the work late.
- The Assessment principles of Fair and Transparency are therefore achieved.
- All the relevant sponsors will then be provided automated (within reason) progress reports immediately on the day that is required. These should be managed by the human administrator in the agreed dates. They will generate the relevant report/s (with a click or 2) that will provide the correct information for each stakeholder's specific reason.

Assessors tend to get overwhelmed with assessments when there is no focused time frame and then do not complete online. Or when they attempt to collect portfolios and only 70% of the learners have submitted, they end up assessing those, dropping off the assessed P.O.E.'s and then taking the remaining 30% and assessing again (twice or three-times.) This should be a thing of the past, and with P4P as the leading e-Assessment and e-Portfolio platform, the assessments can all role out as planned, and learners must be expected to submit on time – online)

## e-ASSESSMENT

### CONTENT CONVERSIONS

Digital assessment and what to consider in the conversions to digital.

The decision you need to make is how you are going to change your assessment process into the digital experience, what conversions and in which order you will apply. An LMS / e-Learning platform will not provide the correct process, workflow, and governance for assessment. You need to use an e-P.O.E. and e-Assessment platform for that, and this is what P4P offers. ([Click here to learn](#) what the differences are between the different platforms.)

Whatever you are choosing, remember the **factoring concept** (discussion in point 1. **Assessment** above), below are some of the digital tools / options that are currently available for you to use in digitising your assessments. These methods and tools are applied based on the factors, i.e., Diagnostic / RPL Assessment, Formative Assessment, Summative Assessment, Evaluation of Assessment – and can be used in any and all of the factors to satisfy you needs.

#### Knowledge Tools:

Exam based structures, true/false, monkey puzzles, match the elements, essay, short answer etc...

1. **What tests:** These are best done when asking the learner “what” type questions and require rout learning (short term memory). They have direct / correct answers and can be marked by e-Learning platform.
  - The conversion: Consider using digital assessment platforms for the different knowledge type questions, in the long run these platforms are more cost effective and save you time and money.
2. **Why tests:** These are more specific to testing the understanding of the candidate as to WHY something happens or is applied. These required more essay type answers and a human assessor to review the answers. At the point of writing this document, AI is not evolved enough across most of the world to mark/analyse the nuance and thinking written down on behalf of the human.
  - The conversion: Consider using a typed /essay-based test in the e-Learning platform, ask for a voice note or even a video of the learners answering the questions. This need not be typed or written of you are not assessing that particular skill.
3. **How, Where and When type of tests:** These are testing the learners ability to explain HOW something happens. This could be process creation, linked to Why tests.
  - The conversion: Consider using the concepts of digital Monkey puzzles, joining the “dots” to create an image that is correct, let the learners take an interactive journey through choosing the correct URL's to build a picture, ChatBot links, video links etc.

#### Skills Tools:

1. **Simulations:** These are controlled created scenarios where the learner will demonstrate their ability to achieve the assessment. They need to be as close to real time pressure and workplace experience as possible.
  - The conversion: Consider videos and pictures are great options for your learners to use FROM their workplaces showing their live engagement and interaction – and these can be loaded into a e-P.O.E. and e-Assessment platform for assessment. **Virtual reality** can be amazing; however, the caution is by a learner using 2 hand hold controllers, this does not show if they can actually pick up a 12kg fire extinguisher and use it correctly. For VR to be effective, you should partner with a VR company that will be able to build triggers and sensors into actual machinery where the consequence of the action is experienced.

2. **Augmented reality:** Augmented reality is an amazing tool as you can augment any scenario to be experienced through a screen. You must consider the reality of the augmenting of the space, the costs, time and if you will provide your learner with the correct tools/data/screens for this to be of value. You also need a great sense of creativity for this assessment method to be valuable.  
-The Conversions: For both the VR and AR experience, you should use a video recording app / tool so that the learner can load their evidence into an e-Assessment e-P.O.E. platform.
3. **Workplace application and /or Live demonstration:** This is the optimum evidence that can be collected. It is the learner demonstrating real application of competence live in a real pressurised environment and this will show both their skills, and knowledge as well as their ability to manage themselves in different situations. It is important to inform any customers that this assessment evidence collection will be taking place PRIOR to creating it to remain within POPIA and GDPR requirements.  
- The conversion: Consider requesting videos, pictures, images, voice notes, phone calls, web-applications, etc as this visual evidence. (If this is done well then you could even bypass the writing of the knowledge tests, as the learners will have demonstrated their knowledge through their skills.

#### Desire / Attitude tools

1. **Want to:** These assessment tools are a little trickier, as they are attitude based, and this generally requires a psychometrist or trained coach to analyse the results and provide feedback. There are MANY tools on the market in which you can get trained up to use and provide feedback to the learner, however they are not good indicators of applied competence, they are more direction for job fit or if the learner will be an asset to the team.

### How to action the results digitally in the 4<sup>th</sup> Industrial Revolution:

What actions to consider for different assessment results and how to digitise these. The world of digital has opened so many new pathways that you can assist your learners. We recommend the following if your learner scored in their competence assessment:

#### 0%-70% competence: Requires further training (content provision.)

This means that the learner probably requires more training, classroom, or group work to increase their knowledge or skills of their competence.

**Digitising:** deconstruct your programme content into micro learning journeys (like chapter-by-chapter. Make sure that you use a consistent user experience behaviour model, and then convert the content of your programme into video, audio, animations, comic strips or SHORT content reads (5-10 lines at a time). Instead of getting your learners back into a classroom, push this content to them through drip feeds or chatbots, and make the engagement exciting. Always link your micro learning to a good demonstration of skill assessment.

#### 71% - 85% Competence: Requires further On job Coaching (Skills Sharpening)

Often your learners do actually quite well in demonstrating competence and just miss a few criteria that will take them across the line to 100% competence. TO send these learners back on training in almost like a paternal punishment for the gaps as opposed to encouragement for what they achieved. In these times we recommend that you assign the learner to a skills coach. This person does not necessarily have to be trained on fancy coaching programmes and have many coaching licences. They need to be a Subject Matter Expert in the topic that is being coached.

**Digitising:** Use a human coach or if you have an AI coach that is also good) and provide your learner with access to this coach 2 – 3 times per day. If the coach is not the actual learner's supervisor – or based on the same working area as the learner, then use POP-Culture digital platforms for access (zoom, skype, tiktok or inhouse tech) for the learner and the coach to meet. It is also quite important create device stations (like selfie sticks) in the workplace where the coaching can take place, so that the learner can put tier phone/tablet/device down, and it can be focused on them as they demonstrate their sharpened skill live.

**86-99%: Competence: Requires Mentoring or Ambassador development. (Skills Perfecting)**

These are the learners that have pretty much aced the programme from a knowledge, attitude AND skills perspective. They are really not required back in the classroom and probably do not need skills coaching at all. They are on a growth trajectory either to a higher position within the workplace or into a different department for them to being their ability. Some kind of mentorship programme will be a good offering for this learner.

**Digitising:** This would be a great opportunity to create a practical digital mentorship programme, where the mentor is mostly a recorded discussion of the topic, and the learner can complete the relevant tasks and challenges at their own time. And this should be linked to company specific job role sand titles, where these learners are invited to interviews and ideation sessions if they are achieving the tech challenges.

They could also be developed as an ambassador of the programme that they have just achieved. This too would be a digital learning journey, where they will learn the skills to impart their competence to other learners for the future.

**100%+: provider of support to others. (Other Skill development)**

Don't lose these motivated, and very important learners to your competitors. They will have demonstrated that they can apply their learning, digitally, and accurately into the workplace. They will have mastered more of the digital world in using the different platforms and they are highly motivated to achieve. These are the people that you want working with and mentoring your new learners.

**Digitising:** Use your digital ambassador programme for their self-directed learning. Let them have access to different YouTube, Vimeo and other social media platforms to develop themselves. Give them a measurable goal and target (if they choose to accept the mission) use Gamification and other engagement strategies for these learners, and ALWAYS link the digital experience to the purpose that is greater than them



e-ASSESSMENT CONVERSATIONS		
<u>UPSKILLING</u>		
<b>Learner / User / Candidate</b>	<p><b>Digital onboarding:</b> All your learners need a separate day for the digital onboarding, where they will learn and experience how to use the platforms that you will be expecting them to use.</p> <p><b>Integrated platform usage:</b> Your Pre-course Assessment should be linked to this digital on-boarding session, where the learner completes the declaration to be assessed in the e-P.O.E. technology and then accesses the learning content. This can also be used as an experience for digital RPL or to explore if the learner can complete self-directed learning or if you should be offering a blended learning approach.</p> <p><b>Platform practice:</b> In the digital onboarding the learner should be able to practice on all the required platforms, they should download and apps that they will be expected to use (chatbots, docscan, LMS etc), and there should be both self-help and technology help guides.</p> <p><b>Platform Support:</b> After you have completed the digital onboarding, you do need a skilled tech support team to engage with the learners (on face time, WhatsApp, telegram etc) for the rest of their learning journey This will also assist them to understand the e-Assessment and e-P.O.E. platform and how they can leverage the successes of achievement post training if they want to show their future employers their achieved skills.</p>	Click to do a maturity Measure
<b>Primary Assessor</b>	<p><b>Platform introduction:</b> Your primary assessor needs to have access to your e-Assessment and e-P.O.E. technology before they are expected to use it. It is crazy that provider expect that the Assessors will just know how to use the tech required. How to use the platform, navigation, nuance, shifts in assessment practice and specific requirements required with using technologies all need to be covered.</p> <p><b>Platform practice:</b> They should be required to practice on the technology BEFORE they are expected to use it, as a learner and as an assessor. P4P recognises this needs and so we have create the 100% self-directed e-P.O.E platform proficiency review", where you can test yourself on how well you can navigate an e-Assessment platform. (<a href="#">Click here to find out more about this</a>).</p> <p><b>On-going assistance and support:</b> Your assessors should be provided ongoing support on the platforms, and be involved in the review and design of future functionality – this will increase the desire to use the tech. By offering ongoing weekly or bi-weekly sessions, for all the assessors, will assist them in remembering how to use the platform in the months when they are not digitally assessing.</p> <p><b>How to leverage off the skills for other work:</b> As more and more companies are trusting the digital space; they are looking for assessors who are able to demonstrate their ability to assess using technology. Not just in PDF and Word, but actual technologies and platforms that govern and support the legislative process of assessment. When an assessor uses P4P, they are they accessible TO training providers offering work. P4P also provide their details (if they permit) to clients who contact us for the details of the Assessors.</p>	Click to do a maturity Measure

<p><b>Evidence collector</b></p>	<p><b>Platform introduction:</b> This is a growing in importance role in e-Assessment and e-Portfolio's because they will be at the coalface with the learner, helping them build their portfolios. This person should be introduced to the platform before the learner begins the training.</p> <p><b>How to use the platform</b> They should also be introduced to the required Portfolio of Evidence and HOW it should be captured int eh e-Assessment and e-Portfolio platform.</p> <p><b>Platform practice</b> This will just require basic support if the technology is well designed and thought through. The Evidence Collectors role should have experience in all the technologies that are expected to be used by the learner, so that the assistance and support is provided in all places.</p>	<p>Click to do a maturity Measure</p>
<p><b>Tech Support - UX</b></p>	<p><b>The platform introduction:</b> The support team should have used the Platform as a learner before they begin to support the learners. They need a deep understanding of what the platform entails, how it works and the potential challenges that the learners will experience.</p> <p><b>Different scenarios of the UX from previous users.</b> There should be an image and process library set up and ready for use, on the different device platforms by the support team. They should be able to trouble shoot the different learner challenges and provide images and support to the users as needed.</p> <p><b>Platform Analysis</b> There needs to be a place where common challenges per client are captured, so that system support, ideas and changes can be recommended to the clients based on the results for the UX.</p>	<p>Click to do a maturity Measure</p>
<p><b>Admin</b></p>	<p><b>Platform introduction:</b> Your Administrators are the gate keepers of P4P technology. They track the learners progress, details, allocate new learner, register learners, draw reports, assign moderation and all other Admin Functions.</p> <p><b>How to use the platform:</b> The Administrators need a digital onboarding session and the continued support on how to use P4P to maximise the platform resources. A one size onboarding does not fit all scenarios for every administrator. There are many different scenarios that role out, that the administrator needs ot be cognisant of. They need to be able to navigate the Wiki site for quick self-help instructions and ultimately responsible for accepting the invoices of the assessor/internal moderator in relation to the work completed. Support for the different roles that are expected by the administrator, and as such they are provided constant support as they transition into the e-Assessment and e-PO.E. platforms.</p>	<p>Click to do a maturity Measure</p>
<p><b>Internal Moderator</b></p>	<p><b>Platform introduction:</b> Your Internal Moderators should understand the e-Assessment and e-P.O.E. technology before they are expected to use it. They need to be fully informed of the technology and how the programmes are designed / created into the technology. This will provide them with a context of the internal moderation function.</p>	

<p><b>Internal Moderator</b></p>	<p><b>How to use the platform:</b> They need to be able to shift from 100% paper based, to using their familiar paperwork just accessing the content in the tech solution and then finally into a fully digital experience.</p> <p><b>Platform practice:</b> They should be required to practice on the technology BEFORE they are expected to use it, as a learner and as an Internal Moderator. P4P recognises this needs and so we have create the 100% self-directed “e-P.O.E platform proficiency review”, where you can test yourself on how well you can navigate an e-Assessment platform. (<a href="#">Click here to find out more about this</a>)</p> <p><b>On-going assistance and support:</b> Your Internal Moderator needs to be provided with ongoing support on the platform – especially when they are required to conduct an Internal Moderation. This will assist P4P with the review and design of future functionality and increase the desire to use the tech. By offering support on the day of Internal Moderation for all Internal Moderators, P4P assists them in remembering how to use the platform in the months when they are not digitally Moderating.</p>	<p>Click to do a maturity Measure</p>
<p><b>External Verifier</b></p>	<p><b>Platform introduction:</b> Your External Verifier needs only a basic understanding of the platform, in how to access the relevant content of the Internal Moderator, Assessor and Learners action conducted.</p> <p><b>How to use the platform:</b> They need to be able to shift from 100% paper based, to using their familiar paperwork just accessing the content in the tech solution and then finally into a fully digital experience.</p> <p><b>Platform practice:</b> Is only needed for their verifications that they complete periodically in the platform. This remains a support function.</p> <p><b>Support:</b> Your Verifier should be provided support on how to use the platform when they are required to conduct an external Verification.</p>	<p>Click to do a company maturity analysis</p>

