WRITTEN ASSIGNMENT

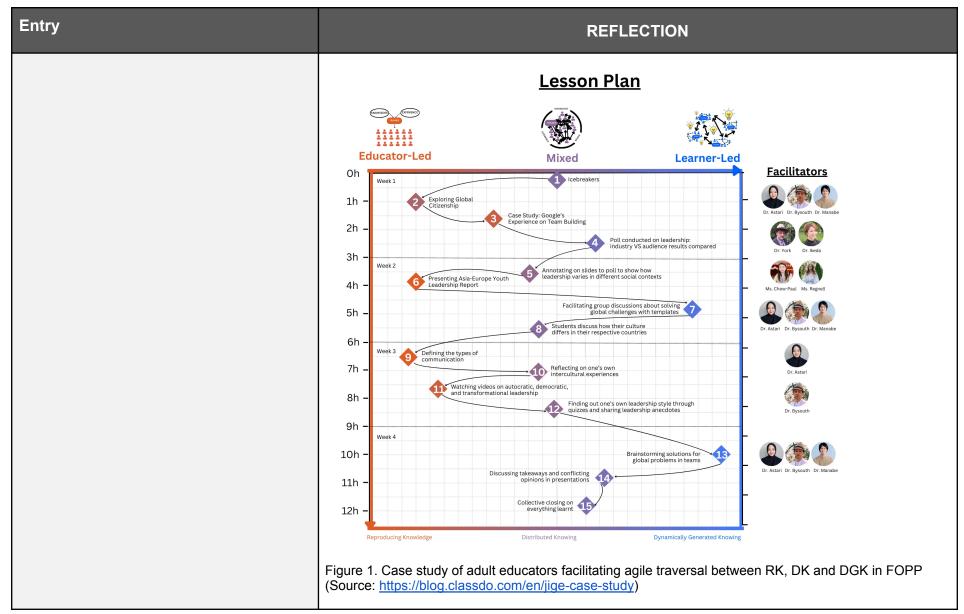
<u>Instructions</u>

This is an individual written assignment. You are to apply reflective practice on your learning in RPP module, and share your reflections for each of the Entries in the table below.

NOTE: Please attach the completed Assignment Cover Sheet to your Written Assignment and submit as a single document file.

Entry	REFLECTION	
Entry #1 – Professional beliefs: Locating y	Entry #1 – Professional beliefs: Locating yourself in the TAE Sector as an Adult Educator	
 Which of the Desired Attributes of Adult Educator in the TAE Skills Framework do you possess? Do you have a Growth Mindset? Describe briefly how you plan to live out those attributes. Reflect on impact of technological disruptions on work and learning, and the application of Future Oriented Pedagogical Practices (FOPP). Specifically, identify your professional beliefs, future skills and development needs to develop future-oriented learners based on the current trends. 	Desired Attributes and Growth Mindset Drawing from the TAE Skills Framework, all the five desired attributes resonate with me as an adult educator. I especially embrace the following attributes and am committed to continually develop them: • Adaptability: The world including the TAE sector faces unprecedented disruptions to work and learning, driven by technological advancements. An adaptable adult educator needs to influence and manage diverse groups of stakeholders and learners, and be resourceful and resilient in dynamic environments. I plan to live out this attribute by embracing the shift from instructional design to experience design and continuously seeking new digital tools and pedagogical methods to remain responsive to the evolving needs of both learners and the industry. • Passion for life-long learning: This emphasises taking ownership for sustaining and improving one's professional practice, aiming to deliver meaningful innovative learning experiences. I intend to embody this by actively engaging in continuous professional development, staying updated on new research and best practices in adult learning by subscribing to updates from IAL, AEN and beyond, and modeling proactive learning and sharing with learners. This involves internalising the cyclical reflective practice process of continuous learning from experience and self-reflection. • Future-oriented: This means exhibiting traits of a forward-thinker, seeking opportunities to grow, innovate, and anticipate future priorities. I plan to demonstrate this by regularly learning from thought leaders and influencers in this space, and constantly experiment and evaluate reflective	

Entry	REFLECTION
	practice trends to identify ways to improve learning processes, ensuring that my teaching strategies prepare learners for the future of work and the changing CET landscape.
	I strongly believe I possess a Growth Mindset (Dweck, 2016). An individual's mindset significantly impacts their potential and success. A growth mindset is characterised by the belief that abilities and intelligence can be developed through dedication and effort, embracing challenges, persisting through setbacks, and learning from criticism. I aim to live out this mindset by approaching new pedagogical challenges with healthy skepticism, viewing any deviation from expectation as an opportunity for learning, and continuously striving to refine my teaching methods based on reflection and feedback. This commitment to ongoing personal and professional growth is integral to navigating the dynamic changing world.
	Impact of Technological Disruptions
	The TAE sector is undergoing significant transformation due to both political, economic and technological disruptions, which have radically impacted work and learning. The tariff wars, specifically technology export controls, have intensified AI competition between US and China, and coupled with the exponential improvements in generative AI, have led to the explosive proliferation of digital content, platform and tools. This means that digital learning is no longer just a type of learning, but a fundamental way of learning, with a shift from instructional design to experience design. Learning is now delivered "where people are", requiring both individual and organisational learning to adapt to this new landscape.
	Application of Future-Oriented Pedagogical Practices
	My professional beliefs are deeply shaped by this disruptive environment. I believe that an adult educator's primary role is to equip learners not just with knowledge and skills, but more importantly with the disposition and capacity for continuous adaptation, critical analysis and creative problem-solving, leveraging on transformative generative technologies. This necessitates a move beyond traditional "Reproductive Knowing" (RK) towards "Social Learning / Distributed Knowing" (DK) and, most significantly, "Dynamic Generative Knowing (DGK)". My core belief is that learning environments must be designed to empower learners to leverage upon the lowest layer of facts and first principles, brainstorm and fertilise ideas collaboratively with fellow learners, and advance to higher levels to think critically, challenge assumptions, and create new solutions. Applying the desired attributes of adult educators in the TAE Skills Framework, one must develop the capacity to traverse agilely between these three realms (see Figure 1).



Entry	REFLECTION
	Future Skills & Development Needs
	To develop future-oriented learners based on current trends, my future skills and development needs are aligned with the key skills required for adult educators in this transforming sector. These include and are not limited to the following:
	 Emerging Technology Synthesis: Given the rapid mushrooming of new tools for work and learning, I need to deepen my ability to monitor and integrate emerging technology trends into my practice. This includes understanding how to leverage new technologies to create impactful learning experiences. Learning Technology Design: It is essential to move beyond simply using technology to designing learning experiences that strategically integrate technology to enhance learner engagement and outcomes. This would involve developing expertise in designing for digital learning environments and varied learning modes. Transdisciplinary Thinking: Future-oriented learners need to access and synthesise knowledge from diverse sources, including communities, artifacts, online resources, and global experts. I need to enhance my capacity for transdisciplinary thinking, allowing me to co-relate ideas from diverse knowledge bases and guide learners in navigating complex, interconnected information. Creative Thinking: To foster DGK, where learners are empowered to solve complex and even "wicked problems", I need to cultivate and apply creative thinking to develop innovative pedagogical approaches and encourage creative and divergent solutioning in learners. Workplace Learning Delivery: With the emphasis on learning being delivered "where people are" and the growth of workplace training, I need to further develop skills in designing and implementing bespoke learning interventions that address specific business performance gaps. Data Analytics (Research Data Analysis, Organisational Impact Analysis): The ability to collect and analyse data is crucial for developing more effective and contextualised learning experiences. This skill will allow me to evaluate the effectiveness of my pedagogical choices and refine them based on evidence.
	My plan to develop future-oriented learners involves a continuous cycle of reflection-in-action and reflection-on-action, allowing me to iterate and improve my approaches. By focusing on these future skills, I aim to create dynamic learning environments where learners are challenged to build knowledge, critique information, and develop confidence for creative problem-solving, thereby thriving in the continually evolving landscape of work and learning. This also entails understanding how reflective practice itself is a key skill for professional development in a practice-based profession like adult education.

Entry REFLECTION

Entry #2 – Beginning Our Journey as an Adult Educator with Reflective Practice (RP) Approaches and Methods

Reflect on one recent learning or teaching experience (located within the lifecycle of learning activities) using at least TWO different reflective practice approaches and/or methods:

- Locate your work experiences within the lifecycle (e.g. design, implementation) and reflect on the issues using RP approaches / methods
- Identify new insights gained when using a different approach/method to reflect on the same experience
- Evaluate the approach and/or method used and justify your preference to use it in the context of your practice

The recent teaching experience I would like to relate to is in supporting a class of 22 Sec 4 Computing students from a mainstream school in O-level practical Python programming exam revision in July and August (still ongoing every Mon every week and every Tue and Thu every even week. While this may be PET (Pre-Employment Training) vs CET (Continuing Education Training), there are sufficient similarities between this target group and adult learners:

- Most of them are motivated to learn as it is a high stake national assessment which will affect their progression to A-level or polytechnic
- They are also juggling this subject with their many other O-level subjects, just like many adult learners who are balancing training with their work commitments
- Programming is an industry in demand technical skill and goes beyond just knowledge acquisition and regurgitation; students have to demonstrate competency in problem solving

The lifecycle stage is in the implementation phase, as the school has informed that the previous Computing teacher (who has since been posted out to another school) has already taught the students the fundamentals, and the focus for this period is revision and past years' questions practice. Thus the preceding phases are:

- Planning the school has put in place a weekly past years' questions practice schedule leading up to the prelim exam in Sep
- Design every Mon, the students will practise solving the last practical task of one paper, as this is an open-ended and least guided task which most students tend to have difficulty answering
- Development I will observe both their processes and products to ascertain any performance gaps which I can then provide feedback to bridge these and hopefully see improvements.

During the implementation phase, I immediately identified some critical issues. I decided to first use Schön's Reflection-in-Action and Reflection-on-Action reflection method:

- Reflection-in-Action: Occurs during the event or action, involving thinking about the situation, deciding how to respond, and acting immediately.
- Reflection-on-Action: Occurs after the event, involving thinking about what could have been done differently and how to apply learning for future situations.

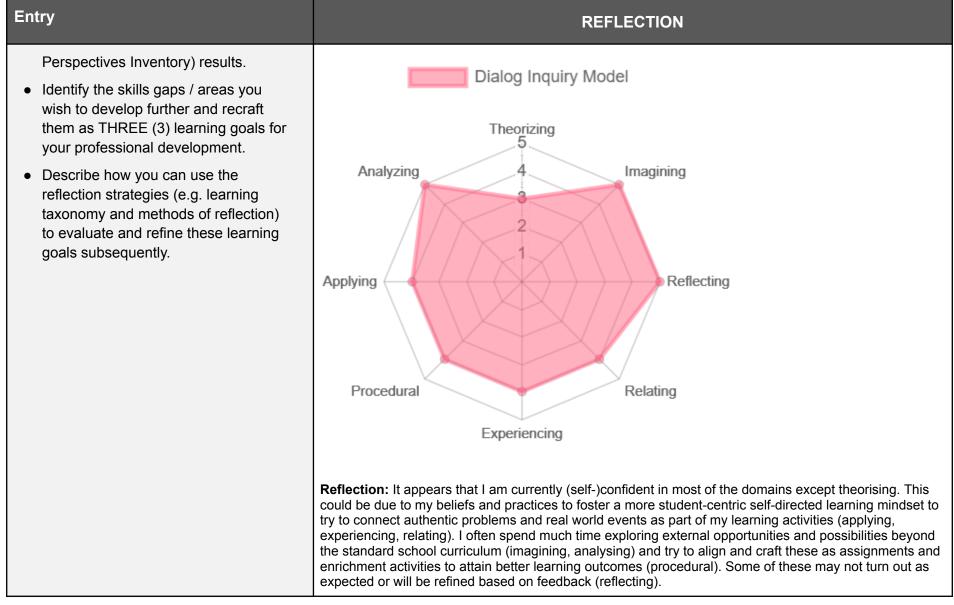
Applying this to our lesson experience:

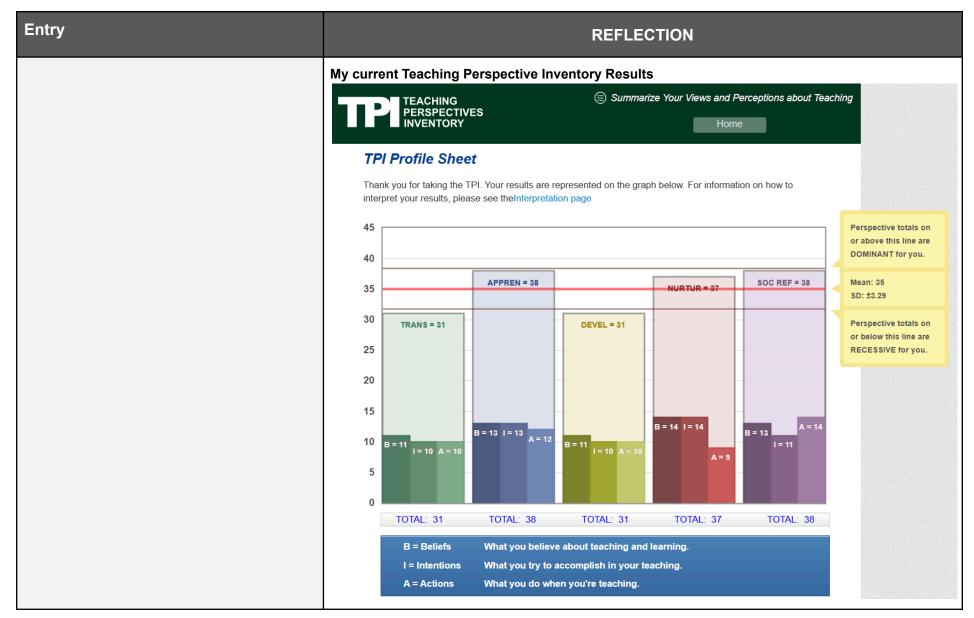
Entry	REFLECTION
	Reflection-in-Action During the first lesson when students were instructed to try the last practical task of one past year paper, many of them did not know how to start, as they seemed overwhelmed by its complexity and the multiple task requirements. Also, many of them are still struggling with foundational syntax issues as they were not able to formulate error-free coding constructs like conditionals, loops, functions, data structures (list, dictionary) and file input output. Thus, the first half of the session was not productive. I had to intercept the session and went through the problem statement to teach them how to first understand the question, and take a systematic approach to break down a complex problem into more manageable parts, linking each part to the needed concepts and skills, before tackling each part in turn. Reflection-on-Action After the first lesson and upon discussion with their current teacher (who is not able to teach them Python programming), I realised that the students lack both confidence, a structured problem solving framework and regular practice. Most of them approach Python programming like other theory topics and subjects where they only mainly learn by rote or passive listening without applying them in the coding process to learn from making mistakes and recovering from them. It hus decided that for the next two sessions, to role model the computational thinking and problem solving process, while making occasional common mistakes and show how to debug and troubleshoot to recover and progress. This will provide them to appreciate how such problems can be tackled, and after two sessions, they can begin to see some common patterns and strategies emerge, and relate to and utilise these when they solve current and future problems. More significantly, I also need to instill confidence and uplift the self-esteem of the students, to encourage them to have a growth mindset and it is not too late and I trust that every student is capable of doing well if they put in effort to unde

Entry	REFLECTION
Entry	Applying this to the lesson experience: Single-loop Learning (correcting actions within existing assumptions) Single-loop learning focuses on detecting errors and correcting them without questioning the underlying norms, values, or assumptions. In this lesson, the single-loop response was the immediate adjustment made during the first session: When students were unable to start the past-year paper task and struggled with syntax, I intervened mid-lesson to walk them through the problem systematically. The adjustment focused on showing students how to break down complex problems into smaller parts and link these to specific coding constructs (loops, conditionals, file I/O, etc.). This correction improved lesson productivity but still worked within the assumption that the primary issue was lack of problem decomposition skills and syntax knowledge. In other words, I detected a gap ("students can't begin"), and the response was to re-teach using step-by-step breakdowns, but without re-examining the deeper teaching/learning approach. Double-loop Learning (questioning and revising underlying assumptions & frameworks) Double-loop learning goes beyond corrective action - it challenges the assumptions, beliefs, and frameworks that shape actions. After reflecting with the current teacher post-lesson, a double-loop insight emerged: The problem wasn't just lack of syntax knowledge; it was also tied to students' learning mindset, lack of structured problem-solving frameworks, and passive/rote approaches to programming. I decided not only to role-model computational thinking and problem-solving but also to show the debugging process (including making mistakes) to normalize learning from errors. This decision challenges the original assumption that programming success depends mainly on syntax mastery. Instead, it reframes the teaching strategy around building confidence, fostering a growth mindset, and developing transferable problem-solving frameworks. The outcome shifts the focus from "teaching students how to
	There are many similarities from these two reflection methods: • Both include short term (current lesson) fixes as well as longer term (future lessons) resolution

Entry	REFLECTION
	Both place the importance of mindset change and instilling confidence which can shift attitude and drive more sustainable improvement However, Argyris' Double-loop Learning can also be effected within the same session if I am able to detect and address the pertinent issues early so that I can maximise attainment of the learning outcomes of the revision programme right from the first lesson.
	Delving deeper, I also decided to use a third reflection method: Brookfield's Four Lenses. This approach suggests using four perspectives to reflect: • Autobiographical Lens: Reflecting on my personal experiences as a learner. • Learners' Lens: Considering the learners' viewpoints, experiences, and needs. • Colleague's Lens: Seeking feedback and insights from peers. • Theoretical Lens: Exploring educational theories, research, and best practices.
	Applying this to the lesson experience: 1. Autobiographical Lens (My experience as a learner/teacher) As someone who has also faced the challenge of learning programming, I recall the frustration of syntax errors and feeling stuck at complex problems. This reminded me that students need both scaffolding and encouragement to persist. My own journey underscores the importance of patience, modelling mistakes, and demonstrating how recovery from errors is a core part of learning programming.
	2. Learners' Lens (Students' perspective) From the students' viewpoint, the task felt overwhelming and unmanageable, which triggered hesitation and low confidence. Many still equated programming with memorisation, expecting it to be like other theory-heavy subjects. Their struggles signal a need to make the problem-solving process transparent, build confidence incrementally, and validate that making mistakes is part of becoming a competent coder.
	3. Colleagues' Lens (Feedback from peers/other teachers) Through discussion with their current teacher, I realised the students had minimal exposure to hands-on programming and had not been guided in the computational thinking framework. The colleague's insight revealed that their learning culture leaned too heavily on rote learning. This feedback affirmed the decision to role-model debugging and problem solving, giving students a different way to engage with programming.
	4. Theoretical Lens (Educational theories & best practices)

Entry	REFLECTION
	Educational research on constructivism and growth mindset supports the shift from rote memorisation to active, problem-based learning. Theories of computational thinking emphasize breaking problems into smaller parts and learning through iterative cycles of trial and error. By drawing on these theories, the teaching strategy evolves from syntax drills towards a more holistic approach: cultivating resilience, problem-solving strategies, and transferable skills.
	New Insights from Brookfield's Lenses Using Brookfield adds further depth by: Reminding the teacher to draw from personal learning struggles (Autobiographical Lens). Making the student experience more central (Learners' Lens). Incorporating colleagues' feedback as a reality check (Colleagues' Lens). Anchoring decisions in theoretical grounding rather than just intuition (Theoretical Lens). This method shows that improving teaching is not only about real-time reflection (Schön) or challenging assumptions (Argyris), but also about weaving together personal, student, peer, and theoretical perspectives for a more balanced and evidence-based practice.
	Evaluation of approaches used Using multiple reflection methods provides a more holistic and deeper and multi-faceted understanding of the same teaching experience from different perspectives than a single method alone. In this context, given the limited duration and tight timeframe of the revision programme, I would opt for using either Schön's or Argyris' method as this tends to have a shorter turnaround time and is able to generate more actionable steps compared to Brookfield's. Nonetheless, an experienced subject matter expert would also be able to quickly infuse some aspects of the latter within the former so that the reflection can be made more comprehensive.
Entry #3 – Adding Learning Goals to Improve Professional Practice	
 Reflect on your current professional practice in terms of competencies and capabilities using your Dialogue Inquiry Profile (and Teaching 	My current Dialogue Inquiry Profile





Entry	REFLECTION
	Reflection: It appears that I am more dominant on the apprenticeship, nurturing and social reform domains. This aligns with my Dialog Inquiry Model profile and again is likely attributed to my beliefs and practices to empower learners to be not just consumption of knowledge and skills, but to encourage and support them to be designers and creators of technological solutions to solve real world problems to serve those in need for worthwhile causes
	Skills Gaps / Areas Based on my Dialogue Inquiry Profile and Teaching Perspectives Inventory results, my identified skill gap is in improving theorising to devise an impact-based framework. My Dialogue Inquiry Profile shows lower confidence in "theorising," while my Teaching Perspectives Inventory indicates dominance in "apprenticeship, nurturing, and social reform" domains, aligning with my student-centric and real-world problem-solving approach rather than theoretical exploration.
	To address this, I recraft three learning goals for professional development, incorporating elements of the IAL SMART model and demonstrating an intent to adopt reflective practice:
	1. Current: To strengthen my mindset (Affective) and deepen my theoretical understanding of adult learning and pedagogical innovation (Specific), I will dedicate 2 hours weekly over the next three months from August to October (Time-based) to critically review academic literature and research papers related to learning theories and their application in the CET sector (Relevant), documenting key insights and questions in a reflective journal to challenge my existing assumptions (Metacognitive). This goal directly targets my identified gap in "theorising" by focusing on systematic learning from academic sources and integrating metacognitive reflection to promote personal growth.
	2. Strategic: By the end of the next six months from November to April (Time-based), I will design and pilot an impact-based learning framework for at least one new learning intervention (Specific) within my professional practice, utilising the theoretical knowledge gained (Relevant), and evaluating its effectiveness through systematic collaborative learner feedback (Affective) and personal reflection on outcomes (Metacognitive). This goal addresses the "devising an impact-based framework" aspect of my identified gap, emphasising the practical application of theoretical knowledge and using evaluation methods for continuous improvement of learning practices.
	3. Long-term: On an ongoing basis for the next 5 to 10 years (Time-based), I will consistently apply various reflective practice methods (e.g., Brookfield's Four Lenses, Argyris' Double-Loop Learning, Gibb's

Entry	REFLECTION
	Reflective Cycle) (Specific) to evaluate my progress in integrating theoretical insights into my practical application of learning frameworks (Relevant), engaging with a peer or mentor monthly to discuss challenges and new perspectives for continuous professional growth (Affective, Metacognitive). This goal focuses on the continuous nature of professional development through reflective practice, ensuring that the acquired theoretical knowledge is integrated into my daily practice and refined through self-reflection and collaborative feedback.
	To effectively evaluate and refine my professional development learning goals, I can leverage various reflection strategies, including learning taxonomies and specific methods of reflection.
	 Using Learning Taxonomy (e.g., Bloom's Taxonomy) This serves as a meta-strategy to aid in the use and adaptation of reflection to allow me to: Reflect on how I am reflecting: This helps me analyse the depth and breadth of self-assessment. Adopt different ways of thinking: By considering different levels of cognitive engagement (e.g., remembering, understanding, applying, analyzing, evaluating, creating), I can ensure my reflection goes beyond surface-level observations to deeper critical analysis and strategic planning. This can help me refine my learning goals to target higher-order thinking skills or more complex outcomes.
	Adapting Methods of Reflection Various well-established methods of reflective practice can be adapted to evaluate and refine learning goals, facilitating thinking at different levels depending on the objective, purpose, and context of reflection. These include: Journaling: The act of writing in a journal helps provide clarity and sharpened focus, besides documenting records of reflection. • Evaluation and Refinement: By systematically keeping a journal of reflections-in-action and reflections-on-action, I can review entries over time for patterns of thinking or areas to focus on for development. This allows me to track progress towards my learning goals, identify recurring challenges, and refine my strategies based on observed patterns.
	Critical Incident Analysis: This focuses on "vividly remembered events" that are often unplanned and unanticipated. • Evaluation and Refinement: By analysing critical teaching or learning incidents through questions like "What happened?", "How is this incident important?", "What was my reaction?", and "What does it tell me about my beliefs and values about learning and teaching?", I gain deeper insights

Entry	REFLECTION
	into how my current practices align with my learning goals and where adjustments are needed. Unexpected outcomes from specific interventions related to the goals can be critically examined to refine future actions.
	Collaborative Reflective Practice: As work increasingly requires trans-disciplinary interactions, reflecting with others goes beyond individual reflection to a more social communal understanding. It involves gathering to ferret out assumptions, challenge groupthink, and consider multiple perspectives. • Evaluation and Refinement: Engaging in productive reflection with peers or mentors can multiply the impact and effectiveness of learning. By sharing progress, challenges and insights related to the learning goals with others, I can receive diverse feedback, challenge my own assumptions, and gain new perspectives that might lead to innovative ways to refine my goals or the strategies to achieve them. This also helps me learn from each other's mistakes and victories. By integrating these reflective strategies, I can maintain an ongoing process of goal setting that embraces adaptability and resilience, ensuring my professional development remains dynamic and effective in a
	constantly evolving landscape.
Entry #4 – Evaluating Our Professional e	Portfolio to Showcase and Facilitate Career Progression
To leverage technology, share how you can develop an e-Portfolio to showcase your career or professional development highlights.	I intend to learn and apply a recent emerging AI trend and technique, namely vibe coding to showcase my professional development highlights. I decided to explore using technology platform trae.ai which is an AI-assisted agentic integrated development environment by ByteDance, after evaluating a few alternatives (claude.ai and lovable.dev). All offer free usage tiers but trae.ai is currently the only one capable of integrating with GitHub. This allows easy hosting and updates using an industry standard
Develop your <i>professional</i> development or career e-portfolio by including recent	development workflow, while at the same time offering fresh learning opportunities in terms of interacting with various underlying LLMs via prompt and context engineering. The platform is also regularly updated to keep pace with rapid Al advancements, which reflects the desirable adult educator attributes of adaptability, passion for lifelong learning and future-orientedness.
certifications, work achievements, job history in your narrative to a	My e-portfolio is hosted at https://computing.sg/goto/gisc
potential employer or stakeholder	Evaluation of E-Portfolio for Alignment with Learning Goals, Adult Educator Attributes, Beliefs & Values

Entry	REFLECTION
 etc. Evaluate your e-portfolio for alignment with your learning goals, AE attributes, beliefs and values. Ensure that you have described the existing gaps (e.g. lack of e-learning competencies), strengths and career aspirations in a balanced manner through your e-portfolio. 	Learning Goals Development Areas and Future Aspirations, as well as current stage of career timeline show alignment with learning goals. Adult Educator Attributes, Beliefs & Values The e-portfolio contains sections showing impact statistics, career timeline with achievements milestones, strengths to reflect desired adult educator attributes of adaptability, passion for lifelong learning, future-orientedness, as well as a strong growth mindset and being purpose-driven to drive positive impact. Existing Gaps, Strengths & Career Aspirations The Expertise & Continuous Growth section, together with the Critical Self-Reflection section, provide evidence of identified gaps, strengths and career aspirations.

- With reference to the four completed reflection entries to determine your professional beliefs, attributes, work experiences, learning goals and aspirations, and aligned to the future CET landscape, generate a Self-Reflection Infographic of yourself (i.e. including your beliefs, strengths etc.) in the next 5 to 10 years.
- The infographic should have details on how you as a CET professional can thrive in the future CET landscape.

Include the following:

- areas of strengths
- areas you need to develop
- justifications why you will thrive
- how you will change or adapt your practice going forward
- the way you approach your professional development to include reflective practice

I intend to leverage generative AI tool(s) to create my self-reflection infographic. I experimented with a few tools (Canva, Gamma, ChatGPT) but none could provide me with a zero- or one-shot usable result. Standard hallucinations such as typos happen, even with the latest ChatGPT 5 model, as shown in the following:



In the end, I decided to experiment again with <u>trae.ai</u> to generate a webpage with easily editable design, so that I can fine-tune the details efficiently by either directly editing the text within the infographic and/or let vibe coding do the heavy lifting of layout and adjustments. This produced the following result, which can also be accessed at https://gisc.github.jo/pd/infographic.html with subtle animation effects:

