

INTEGRATING AI IN EDUCATION: TRANSFORMING LEARNING — AN AI USE CASE INITIATIVE FOR CANADIAN EDUCATION

Assessment: Integrating the Al Assessment Scale (AIAS) into Education Practices



<u>Building on the work from Round 1</u> on the effective integration of AI into the curriculum and professional learning planning, Parkland Educators will explore the AI Assessment Scale (AIAS) developed by Leon Furze and colleagues, and apply its principles, as well as other leading AI and assessment research to adapt a traditional assessment, ensuring its validity in an AI-enhanced educational environment.

The rapid advancement of Generative Artificial Intelligence (GenAI) has significantly impacted educational assessment practices. To address the challenges and opportunities presented by AI, Furze et al. introduced the AI Assessment Scale (AIAS), a framework designed to guide the ethical integration of AI into educational assessments. The AIAS offers a nuanced approach, moving beyond binary decisions of AI usage to a spectrum that aligns with specific learning outcomes.

1	NO AI	The assessment is completed entirely without AI assistance in a controlled environment, ensuring that students rely solely on their existing knowledge, understanding, and skills You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.
2	AI PLANNING	All may be used for pre-task activities such as brainstorming, outlining and initial research. This level focuses on the effective use of Al for planning, synthesis, and ideation, but assessments should emphasise the ability to develop and refine these ideas independently. You may use Al for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.
3	AI COLLABORATION	All may be used to help complete the task, including idea generation, drafting, feedback, and refinement. Students should critically evaluate and modify the Al suggested outputs, demonstrating their understanding. You may use Al to assist with specific tasks such as drafting text, refining and evaluating your work. You must critically evaluate and modify any Al-generated content you use.
4	FULL AI	All may be used to complete any elements of the task, with students directing Al to achieve the assessment goals. Assessments at this level may also require engagement with Al to achieve goals and solve problems. You may use Al extensively throughout your work either as you wish, or as specifically directed in your assessment. Focus on directing Al to achieve your goals while demonstrating your critical thinking.
5	AI EXPLORATION	All is used creatively to enhance problem-solving, generate novel insights, or develop innovative solutions to solve problems. Students and educators co-design assessments to explore unique Al applications within the field of study. You should use Al creatively to solve the task, potentially co-designing new approaches with your instructor.



Organization: Parkland School Division

Province: Alberta

Date: Spring 2025

Lead: Nicole Lakusta, Emerging

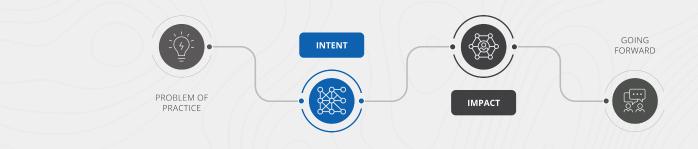
Technology Facilitator

Shaye Patras, Division Principal, Numeracy &

Achievement

Perkins, Furze, Roe & MacVaugh (2024). The Al Assessment Scale

Source: https://leonfurze.com/2024/08/28/updating-the-ai-assessment-scale/



Intent

Vision: Transform educational practices through AI

Goals: Enhance student achievement, support educator and student well-being and improve administrative efficiencies

Key Points

- Transformative integration of AI in education
- · Focus on specific use cases and collaborative learning
- Commitment to privacy, security, ethics and bias mitigation

Participants in Parkland included teachers from grades 5-12 in both

French and English environments who were interested in adapting their current assessment practices, exploring the principles of the Artificial Intelligence Assessment Scale and its implications for assessment design and student learning.

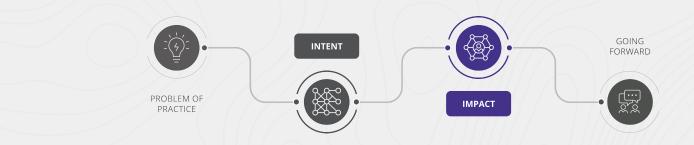
Specific examples from each educator

- **Grade 8 and 9 Novel Study:** Grade 8's choose one theme, character or setting to develop a speech and run it through Goblin tools to experiment with different tones and then choose one, grammar, apply more professionalism, etc. They will then make adjustments to their 90 second persuasive speech and present it to a small group. Grade 9's will choose one of the themes and develop an essay via Al (MagicSchool feedback tool and ChatGPT for thesis generation with teacher) to help generate a thesis statement, organize their paragraphs and provide overall feedback.
- **Grade 7 Humanities Biography narrative essay**: Students research for basic facts on a famous Black Canadian. BHM Biography assignment. The rough draft will be reviewed by a MagicSchool customized bot with specific teacher instructions that include the rubric and an opportunity to provide suggestions to improve their own essays.
- **Grade 9 English Language Arts functional writing assignment**: Students are preparing for their PAT and the focus was to have students view Al-generated examples via Google Gemini (by the teacher) of business emails and in using the Scoring Guide to identify gaps and offer suggestions for improvement.
- **High School (grades 11,12) French Language Arts students debate**: Students were to present and defend their point of view. They would use ChatGPT as a tool to help them with their ideas, arguments, phrasing and also reflect on its limits.
- **Grade 8 ELA biography of a novel character**: The teacher used AI in designing prompting scaffolds, worksheets and synthesising best practices while the students were introduced to AI and prompting via MagicSchool Adobe image generation (create a portrait of a character). Students then researched their novel character and built up a biography. From this information they built custom chatbots to imitate their fictional character.
- **Grade 5 (three classes, three teachers) in Social Studies**: Students create a project to share about one of the members of The Famous Five based on chatbot research and then using Al to create a product.

It can help with the structure and organization, so I'd say it;s helpful for school. It makes me feel more planned out if that makes sense.

—Student in Grade 8 & 9 Novel Study

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Impact

Common Themes

- Enhanced Engagement and Creativity: Al tools led to high levels of student engagement, particularly for students who typically find higher-level thinking challenging.
- **Increased Metacognition:** Students exhibited greater self-reflection and metacognitive skills through structured Al interactions.
- **Focus on Feedback and Revision:** Al's capacity to provide structured feedback significantly improved students' revision processes.
- Risk-taking and Innovation: Teachers and students alike took greater intellectual and pedagogical risks.
- **Concerns with Integrity and Originality:** Students expressed mixed feelings regarding the authenticity of their work when assisted by Al.

Effective Strategies

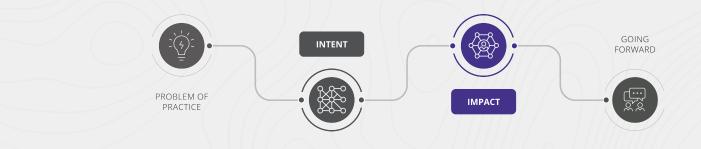
- **Explicit Modeling:** Teachers demonstrated specific AI tools and provided pre-created examples to support initial learning.
- Structured Guidance: Clearly defined processes and structured use of Al supported meaningful integration.
- **Collaborative Learning Environment:** Peer interaction and collective problem-solving enhanced students' understanding and usage of Al tools.
- **Dedicated Exploration Time:** Allowing students to experiment with Al tools before applying them to assignments improved familiarity and confidence.

Challenges Encountered

- **Technical and Logistical Issues:** Difficulty with Al tool setup and management of multiple tools. Technical glitches such as limited Al tokens, internet connectivity issues, and password management. Inefficient dashboard management affecting student productivity.
- **Student Readiness and Anxiety:** Overestimation of student familiarity with AI tools. Emotional anxiety from students feeling overwhelmed by AI outputs or project expectations.
- **Academic Integrity Concerns:** Uncertainty around acceptable use of AI, leading to fears of cheating. Difficulty in assessing student originality and maintaining rigorous academic standards.

Effective Solutions Implemented

- **Structured Classroom Activities:** Conducting pre-teaching sessions on feedback integration and AI use. Engaging students in collective, scaffolded activities to introduce AI concepts clearly.
- **Technical Adjustments:** Setting up individual user accounts and class-specific chatbots to enhance performance and responsiveness. Streamlining tool transitions or limiting the number of tools to simplify student interactions.
- **Enhanced Teacher Support:** Providing clear examples and guidelines to students about how AI can and should be used effectively and ethically. Regular discussions to address emotional and ethical concerns openly with students.



Impact

Professional Learning insights

The professional learning approach in this use case was grounded in collaborative action research, with educators actively applying the Al Assessment Scale (AlAS) in real classroom settings. This hands-on, iterative process allowed teachers to explore, adapt, and reflect on Al's role in assessment while remaining responsive to their students' needs. Below are reflections from each educator, highlighting the shifts they observed in practice, mindset, and student engagement.

Grade 8 and 9 Novel Study:

- Grade 8's were really excited about the use of AI and most enjoyed using goblin tools.
- Grade 9 responses to Al varied, the more studious of my students really struggled with using it as they did not want to come across as 'cheating' even with teacher discussion.

Grade 7 Humanities Biography narrative essay:

• This activity worked very well for the students and they loved having the opportunity to use AI in an educational aspect. It was very neat to see the students given feedback and use it to make appropriate changes. Next time, before we do this assignment I would do a whole class lesson on taking feedback and making changes. This could be a paragraph that was made by a previous student or myself, put it into MagicSchool and as a class make the changes necessary.

· Grade 9 English Language Arts functional writing assignment:

• This series of activities aims to gradually enhance the skills and confidence that students require to excel in the business email section of their Provincial Achievement Test. By familiarizing themselves with the scoring criteria, examining examples, and engaging in writing assignments, students will be thoroughly equipped to meet and surpass expectations.

High School (grades 11,12) French Language Arts students debate:

• My goal was to help the students feel more comfortable doing a debate and expressing themselves in French by removing some pressure and allowing them to rely on AI to support their research. This lesson achieved that objective. The students were all quickly engaged in the lesson and excited to use ChatGPT in the classroom. I even overheard grade 11 students telling other students about it in the hallway. "Yeah, my French teacher let us use ChatGPT in class today.... Yeah it was actually encouraged!" They all started their research right away and were engaged in the topics (even my generally slower to engage -2 students).

Grade 8 ELA biography of a novel character:

• Students were excited to do something that felt engaging, varied, and beyond the work we normally do. Many audibly gasped or broke into a smile when their chatbot first started work.

• Grade 5 (three classes, three teachers) in Social Studies:

 The bot provided all key content so students who missed in-class time were still able to participate and catch up. They enjoyed interacting with it and appreciated that it felt like a real conversation. "...it feels kinda cool talking with the Al about how it feels on stuff we do" and "The more answers it gave me, the more questions I got."

GOING FORWARD

Going Forward

Best Practices for Future Applications

- **Universal Standards and Training**: Develop common standards and protocols for Al usage across classrooms to ensure consistency and fairness.
- **Dedicated Exploration and Practice**: Allocate time specifically for students to familiarize and experiment with Al tools without immediate assessment pressures.
- **Pre-teaching and Modeling**: Invest time in explicitly teaching how to use AI effectively, including how to interpret and apply AI-generated feedback and outputs.
- **Effective Assessment Integration**: Clearly define assessment criteria that distinguish student-generated content from Al-supported enhancements.
- **Focused Emotional and Ethical Support**: Implement ongoing reflection and dialogue to manage emotional reactions and ethical implications of AI in learning.

Next Steps

- PSD Spring Al/Emerging Tech Survey: This instrument (copy of tech survey) will be administered to all school based staff in May 2025.
- **PSD Professional Learning Session 2**: This session will be developed based on feedback gathered from stakeholders on the Spring Survey.
- Targeted Professional Learning for Emerging Technology and Artificial Intelligence in 2025-26 Will be based upon feedback gathered from the Spring Survey as well as from the PSD AI 3 Year Continuum.
- Explore Al Use in Short Term Practices to Support Teacher Pedagogy and Practice Cohorts of educators will explore specific Al Use through in-person professional development sessions and in classroom practices.

The C21 Project 2 at Parkland School Division represents a thoughtful and forward-looking integration of artificial intelligence into educational practice. By applying the Al Assessment Scale (AlAS) across diverse classroom settings, educators explored how Al can enhance student learning, creativity, and self-reflection while navigating challenges related to technical access, academic integrity, and student readiness. The project highlighted the importance of structured guidance, ethical awareness, and dedicated time for exploration in fostering effective Al use. Grounded in real classroom experiences, the initiative offers a roadmap of best practices and lessons learned that can inform future efforts to responsibly and meaningfully embed Al in teaching and assessment.

Resources

- Poster Integrating the AIAS into Education Practices
- Summary Video Coming Soon

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