

Alternative Higher Education Assessment Framework in the Generative AI Era: Project Proposal and Pitch Approach

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Abstract: Technological advancements are reshaping higher education (HE) by challenging the traditional non-proctored assignments. These formats have historically supported learning are increasingly vulnerable to Generative Artificial Intelligence (GAI) assisted content generation, raising concerns about authorship, academic integrity, and assessment of higher-order thinking. This study investigates the Project Proposal and Pitch (PPP) approach as an alternative assessment framework, combining a written project proposal with a structured oral pitch. A mixed-method pilot case study was conducted at a university in Sweden. Data sources include design narrative reflection on the assessment design process, and survey responses from undergraduate students with open-ended qualitative reflections. The analysis focuses on how students perceived the PPP format to shape learning practices and support assessment authenticity and students' learning motivation. Findings indicate generally strong student support and satisfactions for the PPP approach. Students report that it enhances idea development, problem-solving, and engagement with course content, while also improving communication and learning organization. The combined proposal and pitch format was perceived as more engaging than traditional project-based assignments and effective for demonstrating learning in a concise and reflective way. The results suggest that PPP shifts GAI use toward supportive, process-oriented engagement rather than output production. The findings contribute to discussions on assessment innovation by demonstrating how the PPP approach can strengthen reasoning, articulation, and situated meaning-making in GAI-augmented learning environments.

Keywords: Project Proposal, Pitch, Assessment Design, Project-Based Learning, Generative AI

1. Introduction

The advancement of Generative Artificial Intelligence (GAI) is reshaping higher education (HE), particularly in teaching, learning, and assessment design, simultaneously challenging established pedagogical and assessment practices (Mohamed Hashim et al., 2022). Project-Based Learning (PBL) offers a foundation for developing process-oriented assessment approaches (Evenddy et al., 2023), which have been shown to improve student learning in HE (Guo et al., 2020). PBL supports meaningful, real-world problem-solving that enables deeper understanding and knowledge retention (Almazroui, 2022; Guo et al., 2020) through inquiry, investigation, and collaborative learning, where students actively construct knowledge by applying theory in practice (Musa et al., 2011). This aligns with current demands for assessment designs that make reasoning and learning processes visible in an AI context where written outputs can be easily generated (Kasneci et al., 2023; Nartgün & Kennedy, 2024b).

PBL engages students in authentic, real-world challenges, supporting the relevance of academic knowledge and employability skills beyond the classroom (Rahman et al., 2022). PBL develops knowledge construction through complex problem-solving and prepares students for professional practice (Sanchez-Muñoz et al., 2020; Evenddy et al., 2023). However, GAI both supports and challenges these processes by assisting with information gathering and idea development while risking reduced engagement in critical thinking and knowledge construction when overused (Dempere et al., 2023; Gopane et al., 2024; Kasneci et al., 2023).

When GAI generates substantial parts of assignments or solutions, opportunities for meaningful learning may be diminished (Dempere et al., 2023; Nartgün & Kennedy, 2024b; Gopane et al., 2024), intensifying concerns about academic integrity, assessment validity, and authentic learning (Kasneci et al., 2023). The need for assessment approaches that emphasize reasoning, reflection, and process-oriented learning rather than final written outputs alone has increased (Awadallah Alkhouk & Khlaif, 2024). Consequently, AI should be positioned as a supportive tool for exploration and idea refinement rather than solution generation (Dempere et al., 2023; Kasneci et al., 2023; Karunaratne, Aghaee, & Ferati, 2025).

Within PBL, project proposals function as authentic, real-world assessment artefacts involving project design and planning that mirror professional practice (Herrington, 2005). Complementing this, pitching a project proposal (Faff, 2015) is conceptualised as a structured oral assessment format in which students demonstrate understanding by presenting and defending ideas under time constraints (Lubarda et al., 2023; Luoma, 2004).

Here, knowledge is not merely reproduced but reorganised and communicated, requiring prioritisation of key ideas and adaptation to audience expectations. Accordingly, pitching functions both as a learning activity and as an assessment of conceptual understanding and communicative competence (Faff, 2015; Luoma, 2004).

Assessment focus is shifting toward the articulation of ideas, reasoning, and decision-making processes (Evendy et al., 2023; Guo et al., 2020). However, project proposals as summative assessment artefacts remain underexplored. Addressing this gap, the Project Proposal and Pitch (PPP) approach combines written project proposals with structured oral pitches, shifting assessment from final products to visible learning processes with real world project ideas (Kasneci et al., 2023; Awadallah Alkouk & Khlaif, 2024). This positions the PPP as a promising assessment approach that enhances motivation and assessment authenticity in AI augmented HE. The approach was refined through three cycles and presented as an educator design narrative in this study. Two research questions guide this study: (1) What are students' perceptions of the PPP assessment approach? and (2) How do students use GAI to support their learning and performance within this assessment format? The purpose of this study is to explore the PPP approach as an alternative assessment format in HE, examining how students perceive it as an alternative in the learning process and addresses GAI related use and challenges through PBL principles, assessment, and process-oriented evaluation.

2. Project-Based Learning and Research Proposal in Higher Education

Thomas (2000) discusses, PBL as an instructional approach that structures learning around projects, which typically involve complex tasks centered on real-world problems or questions. These require students to engage in inquiry, investigation, problem-solving, decision-making, and design. PBL emphasizes student autonomy by allowing learners to work independently or collaboratively over extended periods, culminating in the development and presentation of realistic outcomes. In project proposal writing as an assignment and assessment, PBL enables students to apply theory, research, and project management to develop feasible, real-world solutions that culminate in a formal proposal and presentation (Thomas, 2000; based on Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

PBL and the development of project proposals (problems and ideas) support learning and encourage learners to take ownership of their educational experiences (Du Toit-Brits, 2019). Students become active participants rather than passive in the learning process. This student-centred approach promotes deeper engagement and greater responsibility for learning outcomes, which is increasingly important as HE seeks to develop learners who can critically evaluate and appropriately use AI-supported technologies (Dempere et al., 2023; Kasneci et al., 2023). PBL and project proposal writing also promote interdisciplinary collaboration and communication, as students from diverse backgrounds work together to address complex problems, share perspectives, and develop teamwork skills essential in contemporary professional environments (Hussein, 2021; Juandi et al., 2021). Through such collaborative engagement, students develop a more comprehensive understanding of multifaceted issues while strengthening their communication, analytical reasoning, and problem-solving abilities (Juandi et al., 2021). These competencies are increasingly emphasized in HE as institutions respond to ongoing digital transformation and changing societal demands (Mohamed Hashim et al., 2022).

Oral assessment formats, including oral examinations and presentations, are widely recognised for their ability to promote deep learning, strengthen students' capacity to articulate reasoning, and develop disciplinary speaking skills (Lubarda et al., 2023; Luoma, 2004). However, traditional oral examinations are often resource-intensive and difficult to scale in HE contexts, particularly in large-enrolment courses where resource constraints pose significant challenges (Lubarda et al., 2023). Pitch-based assessment can therefore be viewed as a scalable adaptation of oral examination principles, retaining the core pedagogical value of spoken knowledge demonstration while addressing some of these practical limitations.

3. Methodological Approach

This study adopted a mixed-methods design. By integrating qualitative and quantitative data, mixed-methods research provides a more comprehensive understanding of the phenomenon under investigation (Creswell, 2013; Creswell & Plano Clark, 2011). In the initial phase, a design narrative approach was employed, in which teachers shared narrative accounts of their experiences with selected courses, including their perceptions of course structure, instructional design, and assessment practices. These narratives established the foundation for the subsequent intervention phase. Drawing on the concept of design narratives (Danko, 2006), the study incorporated an iterative development process to refine and evaluate the pedagogical framework. In the second phase, a pilot survey was conducted to examine students' perceptions of the PPP framework and the extent to

which the use of GAI was also in focus, but to support the validity and development of students' ideas rather than a writing assistant. This study adopted a mixed methods design. By integrating qualitative and quantitative data, mixed methods provided a more comprehensive understanding of the phenomenon under investigation (Creswell, 2013; Creswell & Plano Clark, 2011).

The rationale for this design is to capture measurable patterns in student perceptions and interpretive insights into how the assessment format was experienced and enacted. Following the convergent design logic (Creswell, 2013; Creswell & Plano Clark, 2011), qualitative and quantitative data were collected in parallel, analysed separately, then integrated in the interpretation phase. Enabling the study to move beyond descriptive outcomes explaining how and why the assessment format influenced student learning experiences (Creswell, 2013).

With a pilot survey, the study examines students' perceptions of the PPP framework and GAI support in validating their project ideas. Data were collected concurrently over a two-week period in May 2026 at the end of an Information Systems Management course at a Swedish university, with integration occurring at the interpretation stage to provide a comprehensive understanding of students' perceptions, consistent with Creswell and Plano Clark (2011). The course project required students to develop an innovative digital solution in management context by following the PPP framework, including problem identification, project proposal development, and a final project pitch of one minute per student (five minutes per group). Students received structured instruction on the pedagogical use of GAI in accordance with the provided guidelines at the department of Informatics and the course specific instructions.

Participants consisted of international Bachelor's students, predominantly from Generation Z, representing diverse academic programmes. Detailed demographic information was not collected or reported to preserve participant confidentiality, and demographic factors were outside the scope of this study. Student performance was assessed using the course grading rubric, which evaluated problem identification, the feasibility and originality of the proposed solution, application of the PPP framework, and the quality of the written proposal. Project proposals covered a wide range of digital innovation and management topics addressing real world societal and organisational challenges. Assessment followed the course syllabus and its intended learning outcomes. The pitch was assessed based on clarity of communication, adherence to the NABC pitching criteria, justification of the proposed solution, and the ability to respond to questions. As the study focuses on students' overall perceptions of the PPP framework and GAI support rather than individual project characteristics or student backgrounds, detailed examples of project proposals and the complete assessment rubric are omitted due to conference space limitations but are available from the authors upon request.

3.1 Design Narrative of Iterative Process

In this study, the researchers acted as both educator and designer, reflecting narrative on the iterative development of a project proposal and oral pitch assessment (PPP) across three teaching cycles. The design is understood as evolving through interactions between pedagogical intentions, student engagement, and technological change. Data include longitudinal reflective notes, student work, feedback, and assessment outcomes, analysed iteratively to identify patterns and guide revisions. This process shows how a proposal-based assessment developed into a structured pitch format to better support authentic PBL (Gratchev, 2023).

3.2 Questionnaire Design and Data Collection Process

To evaluate student perceptions of the PPP assessment design, a structured questionnaire was developed following established survey design principles (Creswell, 2013). The instrument included three demographic items, ten Likert-scale questions, and four open-ended questions addressing perceived learning support, engagement, clarity, communication skills development, and use of GAI in learning. The survey was administered to undergraduate students in a management and informatics course. Of 72 students, 41 responses were collected and 38 were valid for analysis, yielding a response rate of 52.7%. This moderate response rate is acknowledged as a limitation of voluntary course-based surveys. Open-ended items were included to capture qualitative reflections on the assessment experience.

3.3 Data Analysis

In line with the exploratory design (Creswell, 2013), quantitative data (Q3–Q10; Table 1) were analysed using descriptive statistics (means, standard deviations, frequency distributions). Item-level patterns were examined

and visualised using bar charts and distribution plots to assess central tendency and dispersion. Question 3 (Q3) and Question 11 (Q11) focused on students' reflections on using GAI in PPP framework, were analysed and visualised in Figures 1 to 5. Qualitative data from Q17–Q21 were analysed using inductive thematic analysis (Braun & Clarke, 2006), involving coding, theme development, and iterative refinement. Q12–Q16 were excluded from the analysis and not used in this study. Selected qualitative responses were also quantified using simple frequency counts to support interpretation. Quantitative analyses were conducted in R and Excel, while thematic analysis was carried out independently by three researchers and refined iteratively to strengthen analytical robustness in line with exploratory research principles (Creswell, 2013).

4. Results and Discussion

4.1 Developing the PPP Assessment Approach

The PPP approach was developed through an iterative design process grounded in PBL. It combines a written project proposal with a structured oral pitch, shifting assessment from product completion toward the evaluation of reasoning, decision-making, and communication. The proposal component supports planning, justification, and problem formulation in authentic, real-world contexts (Herrington, 2005; Gratchev, 2023), while the pitch requires students to articulate and defend ideas orally, demonstrating understanding and communicative competence (Luoma, 2004; Lubarda et al., 2023; Tan et al., 2022; Warda et al., 2024). The following sections present four iterative development cycles.

4.1.1 *First Cycle: Initial Project Proposal Implementation*

In the first iteration, the project proposal was introduced as a structured but open-ended component in an earlier course. Students were asked to identify a problem, outline a project idea, and present an initial solution structure. The design was grounded in PBL principles emphasizing engagement with authentic problems and idea generation (Du Toit-Brits, 2019; Rahman et al., 2022). Excluding the proposal from the final assessment resulted in varied submission quality, depth, and methodological clarity. Although some students framed problems with coherent reasoning, others produced descriptive, fragmented outputs lacking justification. This highlighted a key design flaw: while students generated ideas, the activity lacked sufficient scaffolding for structured reasoning, argumentation, and alignment with learning outcomes. Ultimately, this cycle revealed a distinct gap between intended pedagogical goals and actual student performance.

4.1.2 *Second Developmental Cycle: Refinement and Scaffolding*

In response, a second design cycle introduced stronger scaffolding and clearer assessment criteria. Instructions were refined to explicitly include methodological justification and tighter alignment with course learning outcomes. The project proposal was also redesigned as a simulated professional “call for proposals,” including branding elements and structured submission guidelines. The proposal remained a formative or preparatory component rather than a final assessment. Based on teachers' assessments, reflective analysis and student performance indicated improved clarity in student reasoning, particularly in problem definition, justification, and linking solutions to context. This adjustment aligns with PBL literature emphasizing that structured support is essential for connecting theory to practice in complex tasks (Guo et al., 2020; Sanchez-Muñoz et al., 2020). From this cycle, based on teachers' experiences a key insight emerged: project proposals function not only as outputs but as process-oriented assessments that reveal and develop students' reasoning and professional thinking.

4.1.3 *Final Development Cycle: Integration of Structured PPP Approach*

The final evolution introduced a structured PPP model as the summative assessment, designed to counter GAI overreliance and ensure individual understanding (Kasneci et al., 2023; Dempere et al., 2023). Group tasks included a 4,000-word structured project proposal, simulated as a SEK 500,000–1,000,000 funding application for 12–18 months. This culminated in a final seminar where groups of 4–5 students gave a device-free, 5-minute oral pitch to peers acting as investors, followed by a 10-minute defence of their ideas. Guided by Faff (2015) and Lubarda et al. (2023), this device-free presentation evaluated knowledge and reasoning under cognitive constraints, reintroducing epistemic ownership into authentic assessment. Furthermore, as Luoma (2004) notes, speaking without technology assesses a multidimensional construct of fluency, coherence, and audience adaptation, directly reflecting students' true learning and ownership of their work.

4.1.4 Final Synthesis Contribution

The final PPP configuration strengthens assessment authenticity by combining a structured written proposal with an oral pitch, making student thinking visible through a dual-layer system. This design resists GAI-generated substitution by utilizing GAI for idea exploration while requiring students to demonstrate ownership through structured justification and live explanation (Karunaratne, Aghaee, & Ferati, 2025). Evolving from insights on under-scaffolded proposals and the inadequacy of written-only assessment in an AI-saturated context, PPP aligns with shifts toward AI literacy, critical thinking, and evaluative judgment. By integrating iterative writing with an oral defense, it shifts assessment from product completion to process visibility, emphasizing reasoning, reflection, and decision-making (Evenddy et al., 2023; Kasneci et al., 2023; Awadallah Alkouk & Khlaif, 2024). Ultimately, PPP connects theory to practice through authentic problem-solving (Rahman et al., 2022) and extends traditional PBL by verifying individual understanding where written work alone can no longer guarantee authentic learning (Dempere et al., 2023; Kasneci et al., 2023).

4.2 Result from the Empirical Data

The result captured students' perceptions of learning, engagement, communication, and assessment value. The survey indicates positive perceptions of the PPP approach across all dimensions. Participants included first-year and second year/exchange students who completed the same assessment, with study level considered only as contextual information.

4.2.1 Result From the Quantitative Part of the Survey

Survey responses indicate positive perceptions of the PPP approach. Table 1 illustrates statistics of survey responses reflecting on students' perceptions, reflecting questions 4 (Q4) to question 10 (Q10). Different columns in table 1 presents the number of valid responses (N) and missing values for each question, together with the mean scores and standard deviations. The results suggest consistently positive evaluations across the assessed dimensions, although some variation in responses is reflected in the standard deviation values.

As an additional validation step, exploratory Cronbach's alpha and Spearman correlation analyses were conducted across the main questionnaire constructs. No meaningful or unexpected patterns were identified beyond the descriptive findings. Since validating the measurement instrument and examining inter-variable relationships were outside the scope of this design-focused study, these analyses are not reported in detail.

Table 1. Descriptive statistics of survey responses examining students' perceptions of the PPP assessment approach across learning, reflection, communication, and engagement dimensions.

Table 1: Summary of the survey

Variable	N	Missing	Mean	SD
Structuring ideas (Q4)	38	0	3.68	0.933
Critical reflection (Q5)	37	1	3.68	0.973
Learning experience (Q6)	38	0	3.76	1.10
Communicating ideas (Q7)	38	0	3.68	1.25
Deep reflection (Q8)	38	0	3.39	1.35
Core understanding and learning (Q9)	37	1	3.59	1.24
More engaging than traditional formats (Q10)	38	0	3.95	1.21

Table 1 summarises the survey results. Overall, the median score across all items was 4, indicating generally positive perceptions of PPP. All items used the full five-point Likert scale, with responses ranging from 1 to 5. Students reported that the project proposal supported idea structuring (M = 3.68, Figure 1. Q4) and critical reflection (M = 3.68, Figure 2. Q5). The combination of proposal writing and pitching was perceived to enhance overall learning (M = 3.76), and communication benefits were also noted (M = 3.68). The lowest mean concerned pitching as a tool for deeper reflection (M = 3.39), while the highest rating was for engagement, with PPP seen as more engaging than traditional assessment formats (M = 3.95, Figure 3. Q10).

4. The project proposal helped me clearly structure my ideas and understanding of the topic.	
	Number of responses
1 = Strongly Disagree,	2 (5,3%)
2 = Disagree	1 (2,6%)
3 = Neutral	9 (23,7%)
4 = Agree	21 (55,3%)
5 = Strongly Agree	5 (13,2%)
Total	38 (100,0%)

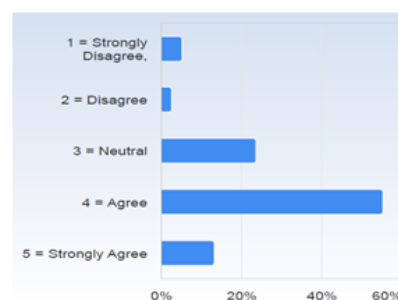


Figure 1: Presenting responses for Question 4.

5. Writing the project proposal improved my ability to reflect critically on course concepts and develop a real project idea.	
	Number of responses
1 = Strongly Disagree,	2 (5,4%)
2 = Disagree	2 (5,4%)
3 = Neutral	7 (18,9%)
4 = Agree	21 (56,8%)
5 = Strongly Agree	5 (13,5%)
Total	37 (100,0%)

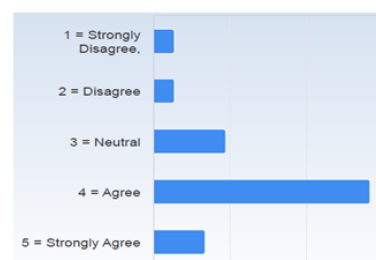


Figure 2: Presenting responses for Question 5.

10. Overall, this assessment method (proposal + pitch) was more engaging than traditional assessment formats (e.g., writing long project reports or essays and presenting in 20-min).	
	Number of responses
1 = Strongly Disagree,	2 (5,3%)
2 = Disagree	4 (10,5%)
3 = Neutral	4 (10,5%)
4 = Agree	12 (31,6%)
5 = Strongly Agree	16 (42,1%)
Total	38 (100,0%)

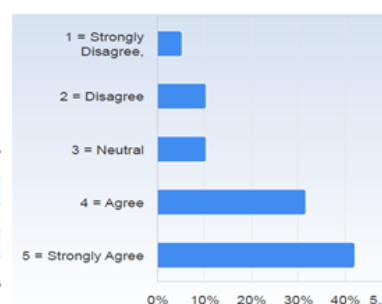


Figure 3: Presenting responses for Question 10.

Based on question 3, students reported frequent use of GAI (Figure 4), mainly for idea validation, structuring, and refinement rather than for initiating or writing proposals. Most used GAI to assess project viability (52.6%), while few used it for writing support (13.2%). This indicates that the PPP assessment design promotes GAI as a tool for validation and critical checking rather than content generation, supporting the view that well-designed assessment can guide GAI use toward learning-oriented engagement rather than substitution of student work (Dempere et al., 2023; Kasneci et al., 2023).

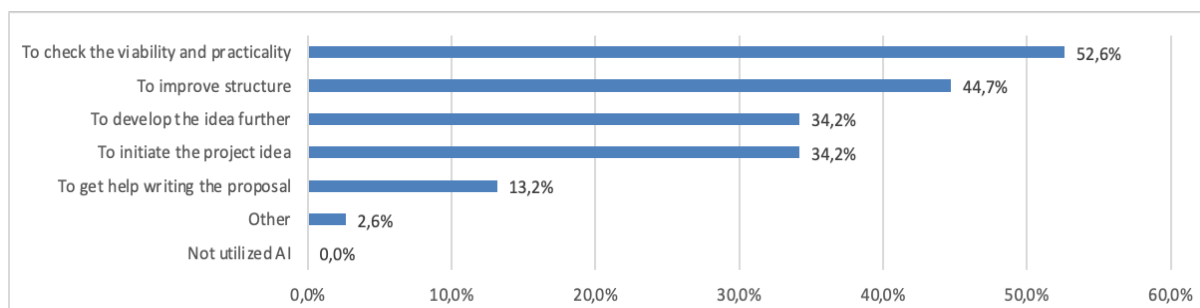


Figure 4: Reported use of GAI during project proposal development

Following Question 3 (Figure 4), Question 11 (Figure 5) examines students' use of GAI in the PPP context. A majority (65%) agreed that GAI supported the development and refinement of project proposal ideas, indicating its primary role as a tool for validation and improvement rather than direct content generation. This contrasts

with earlier studies showing more extensive use of GAI for producing assignments and reports (Dempere et al., 2023; Nartgün & Kennedy, 2024b; Gopane et al., 2024).

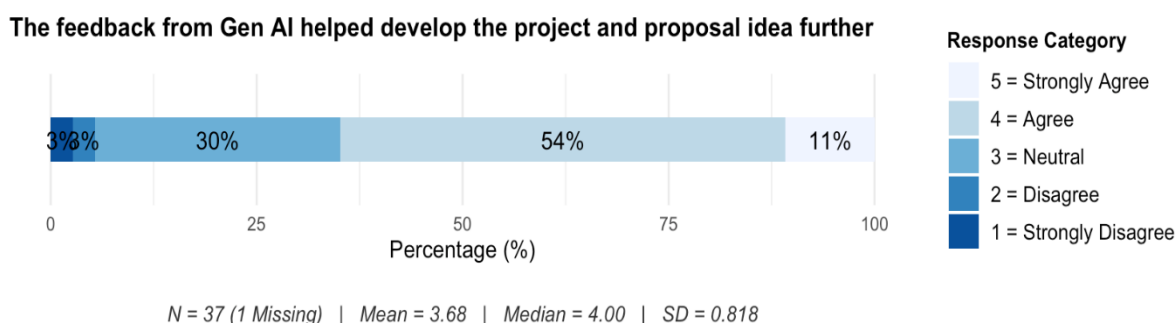


Figure 5: Students' Likert-scale responses on GAI support in developing and refining project and proposal ideas

4.3 Qualitative Reflections and Discussion in Open-Ended Questions

Based on responses to Question 17 to –Question 21, the thematic analysis (Table 2) identifies patterns in student experiences regarding authenticity, collaboration, cognitive and skill development, assessment structure, and motivation, interpreted through PBL and assessment frameworks. A prominent theme is authentic, real-world learning, echoing prior studies (Almazroui, 2022; Guo et al., 2020; Musa et al., 2011). Students described the task as closely aligned with professional and entrepreneurial contexts—incorporating market and feasibility analyses. This reflects strong alignment with PBL principles of inquiry in authentic contexts (Thomas, 2000; Guo et al., 2020) and supports employability development through real-world relevance (Rahman et al., 2022; Herrington, 2005).

A second theme is collaborative knowledge construction, where learning is driven by group interaction and idea sharing (e.g., “sharing ideas/knowledge within the group”), consistent with socially constructed learning in PBL (Musa et al., 2011; Juandi et al., 2021). However, coordination challenges indicate the need for stronger self-organisation in student-centred learning (Du Toit-Brits, 2019). A third theme, cognitive development under constraints, concerns synthesis and prioritisation under time pressure (e.g., “only most important ideas in one-minute pitch”), reflecting deeper inquiry and decision-making (Evenddy et al., 2023; Guo et al., 2020). This also aligns with Kasneci et al. (2023), who emphasise making reasoning visible in AI-augmented assessment.

A fourth theme highlights structural tensions, particularly time pressure, unclear instructions, and imbalance between proposal and pitch (“too short pitch”, “too long proposal”, “vague combination”). While oral and process-based assessment is supported in the literature (Lubarda et al., 2023; Awadallah Alkhouk & Khlaif, 2024), findings indicate that clarity and component alignment are critical for effective implementation. A fifth theme concerns skill development and professional preparation, especially communication, pitching, and creativity (“useful in life,” “soft skills,” “real-life relevant”), consistent with transferable skill development in PBL (Rahman et al., 2022) and communicative competence in oral assessment (Luoma, 2004).

A sixth theme relates to motivational responses, ranging from anxiety to engagement and confidence (“nervous,” “fun,” “motivated”), reflecting the dual nature of oral assessment as both challenging and developmentally valuable (Luoma, 2004; Kasneci et al., 2023). Overall, the findings show that PPP is perceived as highly authentic, engaging, and skill-developing, strongly aligned with PBL principles (Thomas, 2000; Guo et al., 2020), while also revealing implementation challenges related to structure, clarity, and pacing.

Across all open reflections in the survey, students consistently describe the PPP assessment as highly authentic and closely aligned with real-world practice, particularly through its focus on market analysis, feasibility, and project development in a simulated professional context. This supports PBL principles of learning through authentic inquiry (Thomas, 2000; Guo et al., 2020) and aligns with prior work on applied learning (Rahman et al., 2022; Herrington, 2005). Students also highlight collaborative knowledge construction and skill development, especially in communication, pitching, and critical thinking (Musa et al., 2011; Juandi et al., 2021; Luoma, 2004; Evenddy et al., 2023), although group coordination challenges and cognitive demands under time constraints are also evident.

Table 2: Theme–Subtheme–Theory Mapping Table

Theme	Subthemes	Key Student Evidence (Quotes)	Linked Literature
Real-world learning	Market analysis, feasibility, startup simulation	“real-world situation”, “examine the feasibility”, “working with real-life problems”	Thomas (2000); Guo et al. (2020); Rahman et al. (2022); Herrington (2005)
Collaboration & knowledge building	Group learning, idea sharing, coordination issues	“sharing the ideas/knowledge within the group”	Musa et al. (2011); Juandi et al. (2021); Du Toit-Brits (2019)
Critical thinking & under constraints	Prioritisation, analysis, decision-making	“only most important ideas”, “expand critical skills”	Evenddy et al. (2023); Kasneci et al. (2023)
Assessment structure tensions	Time limits, imbalance, unclear instructions	“too short”, “written proposal too long”, “vague instructions”	Lubarda et al. (2023); Awadallah Alkhouk & Khlaif (2024)
Skill development & employability	Oral skills, pitching, creativity	“useful in life”, “training soft skills”, “creative”	Rahman et al. (2022); Luoma (2004)
Motivational response	Anxiety, engagement, confidence	“fun and creative”, “felt confident”	Kasneci et al. (2023); Luoma (2004)

The analysis reveals clear tensions in assessment design, particularly regarding workload balance, clarity of instructions, and the perceived mismatch between written and oral components, indicating the importance of careful implementation in process-oriented assessment (Lubarda et al., 2023; Awadallah Alkhouk & Khlaif, 2024). Challenges regarding workload, grading transparency, and instructional clarity suggest a misalignment between intended process orientation and student experience (Kasneci et al., 2023; Awadallah Alkhouk & Khlaif, 2024). Improvements include clearer instructions ($n = 7$), more explicit rubrics distinguishing proposal, process, and pitch components ($n = 26$ and $n = 24$), and structured phases with formative checkpoints to reduce cognitive load while preserving inquiry-based learning (Thomas, 2000; Guo et al., 2020).

4.4 Research Contribution and Take Away

Positive student feedback validates the PPP framework as an authentic, professionally relevant model that develop student’s thinking, motivation, and active engagement (Gratchev, 2023). By integrating a structured written proposal with a live oral defence, PPP shifts the focus from mere output production to demonstrated reasoning, developing crucial skills in problem-solving, collaboration, and oral communication. Crucially, this dual-layer design addresses the core challenge of verifying individual authorship in an AI-saturated landscape (Kasneci et al., 2023; Dempere et al., 2023). Rather than substituting student effort, findings show that GAI was channelled toward idea validation, structuring, and refinement. This demonstrates that strategic assessment design and transparent expectations can actively cultivate a learning-oriented, responsible use of AI, contrasting sharply with the heavy reliance on AI-generated outputs reported in current literature (Dempere et al., 2023; Nartgün & Kennedy, 2024b; Gopane et al., 2024).

5. Conclusion and Future Work

In conclusion, the study shows that the PPP evolved through iterative refinement from an initially unstructured project proposal into a structured dual-component assessment consisting of a written justification and a constrained oral pitch. This development was reflected in students’ perceptions and experiences, indicating that it represented a viable and engaging shift in assessment logic from product-oriented evaluation in PBL toward a process-visible assessment approach. In this approach, reasoning, justification, and communicative performance are emphasized as central learning processes in AI-augmented HE.

Student feedback indicates strong acceptance of the PPP format, showing it enhances engagement, authenticity, collaboration, and skill development while strengthening ownership of learning. Crucially, students used GAI primarily for ideation and validation rather than full content generation, demonstrating that the assessment design successfully repositions GAI as a tool for cognitive support rather than substitution. However, challenges regarding workload, component balance, and instructional clarity highlight that careful implementation is essential to align design intent with student experience. Overall, this study demonstrates that combining structured written and oral assessments (PPP framework) supports both authentic learning and reflective GAI engagement. As a small, exploratory pilot at a single Swedish university, these findings are not generalizable;

future research should expand this model across diverse contexts, adopt longitudinal designs, refine rubrics, and compare PPP with alternative assessment frameworks.

Acknowledgement

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Ethics Declaration

The study adhered to institutional ethical guidelines and GDPR regulations. Participants provided voluntary, informed consent prior to data collection after being briefed on the study's purpose, publication potential, and data handling procedures. Participation was fully anonymous, allowing respondents to withdraw at any time without consequence. No sensitive data were collected, and all information was securely processed and reported in aggregated form to ensure confidentiality.

AI Declaration

While no AI tools were used in the core research process, generative AI was utilized solely for language correction, proofreading, and word-count reduction during survey preparation, instructional design, and manuscript writing.

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