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Research Article

Revitalizing Writing Education: Uniting Self-Determination Theory and Project-Based Learning for Enhanced Learning Outcomes

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ABSTRACT

Traditional L2 writing education frequently struggles to motivate students, resulting in diminished engagement and suboptimal learning outcomes. To address this, the current study investigates the revitalization of writing instruction by integrating Project-Based Learning (PjBL) with the motivational framework of Self-Determination Theory (SDT). The research specifically aims to uncover the psychological mechanisms—autonomy, competence, and relatedness—that underpin student success in collaborative writing environments. Adopting a qualitative case study design, data were gathered from 10 EFL undergraduate students through semi-structured interviews, reflective journals, and classroom observations, which were then analyzed using thematic analysis. Findings reveal that while PjBL robustly supports competence and autonomy through authentic tasks, the need for relatedness is often threatened by social loafing and inequitable participation. Significantly, the study identifies a "monitoring paradox," where students perceived educator oversight as an essential protective mechanism for relatedness and group fairness, rather than a hindrance to their autonomy. These insights contribute to Applied Linguistics by redefining structured teacher intervention as a vital pedagogical affordance that safeguards the socio-motivational integrity of the language learning process, offering practical strategies for more inclusive L2 writing instruction.

Keywords: *Project-Based Learning (PjBL), Self-Determination Theory (SDT), Student Engagement, Writing*

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INTRODUCTION

In the evolving landscape of Applied Linguistics, the quest for innovative teaching methodologies that foster comprehensive skill development and ensure equitable participation among learners has become paramount. Various studies and academic discourses have underscored the significance of engaging, inclusive, and effective teaching strategies to prepare students for the complexities of the real world (Bakar, 2021; Preus, 2012), a critical challenge persists in L2 writing pedagogy: the high level of anxiety and cognitive load associated with producing academic text in a second language (Rahayu et al., 2022). Among these, project-based learning (PjBL) has emerged as a pedagogical approach that not only aligns with contemporary educational goals but also addresses the multifaceted needs of students by promoting critical thinking, problem-solving, teamwork, and leadership skills (Hutsalo et al., 2024; Moustafa & Al-Rashaida, 2024; Xu et al., 2023).

Delving deeper into the subject, it becomes apparent that while PjBL advocates for an active learning L2 writing education often suffers from "participation silos" where linguistically dominant students overshadow those with lower proficiency Existing studies have predominantly highlighted linguistic outcomes without adequately addressing the challenges of equitable participation in collaborative L2 tasks (Hussein, 2021; Sánchez-García & Reyes-de-Cózar, 2025). This oversight is significant because L2 writing is inherently a high-anxiety task; without a structured motivational framework, students often face "writing apprehension" that leads to disengagement and "social loafing"(Dörnyei & Muir, 2019).

"Monitoring in PjBL ensures fairness, fosters autonomy, and supports learning success.""

The gap in the literature thus points to a critical need for research that not only acknowledges the diverse dynamics of student participation in PjBL but also seeks to understand how educators can foster a more inclusive and balanced learning environment. The urgency of this study for Applied Linguistics lies in its focus on the socio-psychological barriers that prevent L2 learners from fully engaging in collaborative projects. To bridge this gap theoretically, this study introduces Self-Determination Theory (SDT) as an essential analytical lens. SDT posits that motivation thrives when three basic psychological needs are met: autonomy (control), competence (mastery), and relatedness (belonging) (Ryan & Deci, 2020). In the context of L2 writing, satisfying these needs is not merely a pedagogical preference but a necessity to mitigate the affective filter that often blocks language acquisition (Hajiyeva, 2024; Kyrpa, 2023).

By integrating mechanisms such as reflective peer assessments and diversified project roles, educators can create an atmosphere that recognizes the contributions of all students, regardless of their linguistic level (Ojong, 2023; Ramzan et al., 2023). This paper, therefore, provides a counter-intuitive finding regarding the essential role of educator intervention

specifically "monitoring". In balancing the SDT-PjBL synergy. Rather than being perceived as a threat to autonomy, we argue that in the high-stakes environment of L2 writing, structured monitoring serves as a vital pedagogical affordance that protects the "relatedness" of learners and ensures the motivational integrity of the writing process.

Given the theoretical framework and the practical challenges of participation equity in L2 writing identified above, this study seeks to investigate the synergy between SDT and PjBL in fostering a more inclusive writing environment. Consequently, the research is guided by the following research questions:

(1) How is the satisfaction of students' basic psychological needs—autonomy, competence, and relatedness—manifested and supported within an SDT-integrated PjBL writing environment?

(2) How does educator monitoring function as a protective mechanism for relatedness and group fairness rather than a threat to student autonomy in collaborative writing tasks?

LITERATURE REVIEW

Challenges in Traditional Writing Education

Traditional writing pedagogy, particularly in higher education, is frequently beset by significant challenges that hinder student engagement and the development of authentic communicative competence. A primary criticism is its reliance on prescriptive and formulaic approaches, epitomized by the ubiquitous five-paragraph essay structure. This overemphasis on rigid forms often fails to connect with students' lived experiences or the authentic, complex rhetorical demands of the world beyond the classroom (Iida & Chamcharatsri, 2022; Quigley et al., 2024; Yu et al., 2023). Consequently, writing instruction is often perceived by students as a decontextualized academic exercise. A "school genre" that exists only for assessment. In the context of Applied Linguistics, this focus on structural mimicry often ignores the socio-affective factors that influence language acquisition.

This decontextualization is further exacerbated when writing tasks lack a genuine rhetorical situation. In many traditional classrooms, the audience is singular and artificial (the instructor), and the purpose is purely evaluative (to secure a grade). This model stands in stark contrast to writing as a dynamic cognitive process of problem-solving, discovery, and meaning-making (Land, 2022). In an L2 context, this misalignment often cultivates writing apprehension, where students view the act of composing not as a tool for expression, but as a high-stakes, punitive exercise (Au, 2022). Therefore, there is a critical and urgent need to revitalize L2 writing education through pedagogies that foster genuine motivation and mitigate the socio-affective barriers inherent in language learning especially in the current digital era which uses AI as an instant learning medium (Rahayu et al., 2024).

Self-Determination Theory (SDT) as a Motivational Foundation

In response to the motivational crisis identified in traditional writing pedagogies, Self-Determination Theory (SDT) provides a robust framework. Developed by psychologists Richard M. Ryan and Edward L. Deci, SDT differentiates between autonomous and

controlled forms of motivation (Ryan & Deci, 2020). The theory posits that all human beings are inherently active and possess a natural proclivity for growth which can only be realized when the social environment nurtures three universal Basic Psychological Needs (BPNs). The first of these needs is Autonomy, which is the need to experience one's behavior as volitional and self-endorsed. Crucially, in Applied Linguistics, it is essential to distinguish autonomy from independence; an L2 learner can remain autonomous while willingly following an instructor's linguistic guidance, provided they assent to its communicative value (Ryan et al., 2015; Surya et al., 2024). The second need is Competence, which refers to the need to feel effective in one's interactions; in a writing context, this involves feeling that one can successfully meet linguistic challenges. The third need, Relatedness, is the need to feel connected to and belonging with others, fostering a sense of being a valued member of a learning community. According to SDT, when these three needs are supported, students shift toward autonomous motivation. Writing because it is personally valued rather than just for a grade (De Vega & Rahayu, 2023). Educational research consistently demonstrates that autonomy-supportive teaching is a direct predictor of higher-quality engagement and persistence (Maska, 2025). Thus, SDT provides the essential criteria for revitalizing L2 writing instruction (Surya et al., 2024).

The SDT-PjBL Synergy and the Research Gap

The conceptual synergy between (SDT) and Project-Based Learning (PjBL) is compelling, offering a unified model for revitalizing L2 education. On a structural level, PjBL appears to be an ideal delivery system for the three Basic Psychological Needs (BPNs) central to SDT. The emphasis on student choice supports Autonomy, the scaffolded nature of projects develops Competence, and the collaborative teamwork nurtures Relatedness (Bhardwaj et al., 2025; Tang et al., 2024).

However, despite this alignment, a significant gap persists in the literature. This synergy is more often assumed than intentionally designed or empirically investigated, particularly regarding the socio-affective friction in L2 collaborative writing. The assumption that PjBL collaboration automatically builds 'relatedness' is problematic; in practice, projects are frequently threatened by 'social loafing', which damages group cohesion (Maqbool & Shaji, 2024; Xiao et al., 2025). More specifically, a critical gap exists in understanding the theoretical puzzle of trade-offs between BPNs: while educator "monitoring" is necessary to protect Relatedness from social loafing, it is traditionally predicted to thwart student Autonomy. This study aims to fill this precise gap by investigating how structured monitoring acts not as control, but as a pedagogical affordance that safeguards the motivational integrity of the L2 writing process, providing a counter-intuitive finding on the essential role of teacher intervention.

METHOD

Research Design and Context

This research employed a qualitative case study approach to gain a deep, rich, and contextualized understanding of student experiences within a writing course that integrated Self-Determination Theory (SDT) principles with a Project-Based Learning (PjBL) model.

This design was chosen for its strength in exploring complex, real-world phenomena in depth (Creswell, J.W. and Poth, 2018). The study was conducted within a higher education writing course at Universitas Negeri Makassar. In this course, the PjBL model required students to collaboratively develop a significant writing project, while the environment was intentionally structured to support the three core SDT needs: autonomy (e.g., choice in project topics), competence (e.g., scaffolded feedback and clear rubrics), and relatedness (e.g., structured teamwork and peer review).



Figure 1. Research Design
(Generated from Chat GPT with prompts on 02/10/2025)

Participants and Sampling

Participants were 10 students enrolled in the aforementioned writing course. A purposive sampling strategy was utilized to select students who represented a spectrum of engagement levels (ranging from moderate to high) in the SDT-PjBL activities to provide rich, detailed insights into the phenomenon (Patton, 2015) This sampling logic ensured that the participants represented a spectrum of linguistic proficiency and engagement levels, allowing for a robust analysis of how different student profiles navigate the psychological tensions of collaborative writing.

Table 1
Characteristics of Research Participants (N = 10)

Participant (Pseudonym)	Gender	Linguistic Proficiency	Engagement Level	Project Role
FN	Female	Intermediate	High	Group Leader
RS	Male	Intermediate	Moderate	Member
AA	Female	Advanced	High	Group Leader
AS	Male	Low	High	Member
MK	Female	Intermediate	Moderate	Member
KK	Female	Low	Moderate	Member
SM	Male	Advanced	Moderate	Group Leader
CD	Female	Intermediate	High	Member
TH	Male	Low	Moderate	Member
RH	Female	Intermediate	High	Member

Data Collection and Analysis

Data collection in this study was comprehensive, utilizing three distinct sources for robust triangulation: in-depth, semi-structured interviews; reflective student journals; and classroom observations. The primary data collection method consisted of in-depth, semi-structured interviews conducted after the completion of the PjBL projects. This method was complemented by classroom observations conducted throughout the PjBL process and the collection of reflective student journals submitted at key project milestones. This method (interviews) was selected to elicit detailed narratives of the students' individual perceptions and experiences (Brinkmann, 2022; Brosy et al., 2020) . The journals provided longitudinal insights into the students' private thoughts and motivational shifts over time, while the observations, in turn, provided objective data on actual student behaviors, team dynamics, and engagement. This three-pronged approach allowed for a robust triangulation between what students said (interviews), what they wrote privately (journals), and what they did (observations). Interview questions were designed to explore factors influencing their motivation, engagement, skill development, perceived autonomy and competence, and the collaborative dynamics within their teams.

All interviews were audio-recorded and transcribed verbatim, and all journal entries were digitized. These data sources, along with observational field notes, were then analyzed using thematic analysis. The qualitative data analysis software NVivo was utilized to manage the data and facilitate the coding process. The analysis involved an inductive approach, where codes were generated directly from the participant data. These codes were subsequently reviewed, refined, and organized into the overarching themes presented in the findings section, allowing for the systematic identification of patterns related to the integration of SDT and PjBL in the writing process (Braun & Clarke, 2023).

Ethical Consideration

In a qualitative case study, the researcher's role is central. Ethically, the researchers maintained a "middle-ground" positionality. Acting as observers who were familiar with the pedagogical context but remained neutral during data elicitation to minimize power imbalances. To mitigate potential bias, all participation was strictly voluntary with informed consent, and all data were anonymized. The researchers actively practiced "reflexivity," constantly questioning how their background in Applied Linguistics might influence data interpretation, ensuring that the findings emerged genuinely from the students' voices rather than preconceived theoretical expectations. All interviews were audio-recorded and transcribed verbatim, and all journal entries were digitized. These data sources, along with observational field notes, were then analyzed using thematic analysis (Braun & Clarke, 2006).

FINDINGS

The findings of this study elucidate the complex socio-affective dynamics and psychological shifts experienced by EFL students within the SDT-integrated PjBL writing framework. Based on the thematic analysis of semi-structured interviews, reflective journals, and classroom observations, six interrelated themes emerged, representing the core psychological affordances and challenges of the pedagogical model. These themes are: (1) Monitoring and Accountability, (2) Consultation and Feedback, (3) Engagement and Participation, (4) Learning Environment, (5) Skill Development, and (6) Equitable Participation. To provide a systematic overview of the data, Table 2 maps these themes onto the three Basic Psychological Needs (BPNs) of Self-Determination Theory, autonomy, competence, and relatedness, while providing representative evidence from the participants' narratives.

Table 2
Thematic Map of Student Experiences in SDT-PjBL Writing Course

Main Themes (Findings)	Alignment with SDT	Subthemes / Key Codes	Representative Quotes
Monitoring and Accountability	Relatedness & Competence	Reduction of social loafing; Progress tracking	*"Awalnya pengawasan terasa ketat, tapi itu sangat membantu. Kami bisa melihat kemajuan kami... itu membuat kami merasa benar-benar mencapai sesuatu."* (*Interview, FN)*
Consultation and Feedback	Competence	Actionable feedback; Direct guidance	*"Ketika profesor mengoreksi kalimat saya langsung di draf, saya akhirnya mengerti kesalahan saya. Itu membuat saya merasa bisa menjadi lebih baik." (Interview, RS)*
Engagement and Participation	Autonomy	Real-world relevance; Intrinsic motivation	*"Bagian terbaiknya adalah ini bukan sekadar esai biasa... memiliki nilai dunia nyata meningkatkan komitmen kami*

			terhadap tugas." (Interview, RH).
Learning Environment	Relatedness	Psychological safety; Team collaboration	*"Sesi peer-review menciptakan rasa kebersamaan. Rasanya seperti kami adalah tim yang saling membangun sesuatu yang baik." (Interview, CD)*
Skill Development	Competence	Perceived skill development; Task mastery	*"Tugas PjBL yang kompleks membantu saya memahami konvensi tekstual melalui proses drafting yang berulang." (Interview, RS)*
Equitable Participation	Relatedness (Threat)	Student dominance; Inequitable participation	*"Siswa yang dominan memutuskan segalanya... Saya punya ide, tapi sulit untuk bicara... saya merasa tidak berguna di kelompok (Interview, TH)*

Monitoring and Accountability

Triangulated data from classroom observations, interviews, and reflective journals indicated that structured monitoring functioned as a supportive mechanism within collaborative PjBL rather than as a controlling one. Observation data showed that monitoring tools, such as the activity link, made individual engagement visible, allowing both instructors and peers to track participation levels.

Classroom observations (ON, 15/01/2024) specifically noted that during group breakout sessions, students frequently projected their shared activity links onto their screens to discuss pending tasks, demonstrating a high level of self-regulation and group accountability prompted by the monitoring system.
Students perceived this visibility as a means of promoting fairness and justice. As one participant explained:

> *"We are all monitored there... Also, during consultations, the passive students will be seen not commenting much because they usually just accept things as they are," (Interview, AD12/01/2024)*

This sentiment was strongly corroborated by entries in the reflective student journals, which linked this transparency to a sense of interpersonal safety. One student noted:

> *"I used to hate group work because of free-riders, but the activity link makes me feel protected. Knowing my work is seen and my teammates' work is tracked makes the whole process feel fair and motivating. It's a relief to know that 'social loafing' is hard to do here." (Reflective Journals, RS)*

Furthermore, students associated monitoring with progress tracking and task mastery, supporting their sense of competence.

Observation notes (ON, 22/01/2024) recorded that when the instructor walked around to check the progress logs, students did not react with anxiety; instead, they proactively asked for validation of the milestones they had checked off. One participant reflected on this in their journal:

> *"At first, the monitoring seemed strict, but it actually helped. We could see our progress... When we saw all the parts coming together, it... it made us feel like we were actually achieving something, you know? It kept us on track." (Interview, FN15/01/2024)*

From an SDT perspective, these findings indicate that monitoring operated as informational support, scaffolding complex tasks and strengthening students' sense of Competence and Relatedness without undermining Autonomy. By making contributions transparent, the monitoring structure mitigated group conflict and allowed students to trust their peers, fostering a positive collaborative environment.

Consultation and Feedback

Interviews, reflective journals, and classroom observations consistently identified consultation and feedback as the primary mechanism supporting students' Competence in the PjBL process. Students valued consultation sessions but expressed a strong preference for more concrete and personalized feedback, particularly direct annotations on their written drafts. One participant stated that

> *"The consultation sessions could be diversified... Maybe the professors could also mark up our papers," (Interview, AS12/01/2024)*

Indicating a need for actionable guidance rather than general discussion. This was clearly visible during classroom observations (ON, 15/01/2024), where students were observed hovering closely around the instructor's laptop, taking photos or notes specifically when the instructor pointed at their digital drafts and suggested sentence-level revisions. Students reported that such direct feedback helped them understand specific weaknesses and recognize pathways for improvement. As one student explained,

> *"Just talking is okay, but when the professor actually corrected my sentences directly on the draft, I finally understood my mistakes. It made me feel like I could actually get better at this." (Interview, RS17/01/2024)*

This sentiment was echoed in the reflective journals, where students described the internal shift from confusion to mastery following these sessions. One student wrote:

> *"I was really stuck on the introduction for three days. But after today's session, seeing the direct suggestions on my Word file made everything click. It didn't just fix my paper; it made me feel like I actually knew what I was doing for the first time." (Reflective Journal, TH)*

Observational data supported these perceptions, showing frequent feedback-seeking behavior during consultation sessions, particularly when students encountered difficulties in structuring their work. Observation notes (ON, 19/01/2024) recorded that "several groups stayed back after class specifically to ask the lecturer to 'look at their tracked changes,' indicating that they viewed detailed, written feedback as the primary tool for their academic progress. From an SDT perspective, these findings indicate that consultation functioned as informational feedback, reducing task ambiguity and scaffolding learning, which strengthened students perceived competence and sustained motivation during complex PjBL tasks.

Engagement and Participation

Data from interviews, reflective journals, and classroom observations indicated that students' engagement was strongly influenced by the degree to which learning activities were interactive and authentically connected to real-world contexts. Observation data showed higher participation during group discussions, peer-review sessions, and collaborative tasks, compared to passive lecture-based activities. Specifically, observation notes (ON, 18/01/2024) recorded that "while students appeared disengaged during the theoretical lecture, their posture and verbal interaction shifted dramatically during the peer-feedback session, with students actively debating word choices and structural clarity in their groups. Students explicitly expressed

> "*One suggestion would be to incorporate more interactive activities into the teaching process... I would suggest incorporating more real-world examples into the teaching,*" *(Interview, DS12/01/2024)*

One participant described peer-review sessions as creating a shared sense of purpose, stating that

> "*When we had the peer review sessions, it wasn't just about finding mistakes. It was like we were a team, actually helping each other build something good. It's so different from just sitting and listening to a lecture.*" *(Interview, NF18/01/2024)*

This feeling of teamwork was further reflected in the students' journals, where they described the social energy of the PjBL environment. One student wrote:

> *"Today's group session didn't feel like a 'class.' It felt like a real meeting. We were all so focused on making our guide better because we knew it would be read by others. That social pressure was actually very motivating." (Reflective Journal, CD)*

Highlighting how interactive PjBL activities supported Relatedness by fostering collaboration and community. In addition, students emphasized that working on products with real-world relevance enhanced their motivation and commitment to the task. Observation data (ON, 19/01/2024) noted that "groups working on the 'proposal' project stayed in the classroom past the allotted time to refine their arguments, showing a high level of task persistence driven by the project's authenticity. As one student noted, knowing that

> "*The best part was that this wasn't just another essay for the lecturer to read. We were creating a [proposal/guide] that could actually be used. Knowing that... it made me want to do the research and write it well. It felt important.*" *(Interview, AA19/01/2024)*

From an SDT perspective, these findings indicate that engagement in the PjBL context was driven by the fulfillment of Autonomy through identified regulation, as students internalized the value and purpose of their work, alongside strengthened Relatedness through meaningful social interaction.

Learning Environment

Data from reflective journals, interviews, and classroom observations consistently indicated that the affective quality of the learning environment functioned as a key mediator of student engagement and success in the PjBL context. Observational data showed that students were more willing to participate, share unfinished work, and seek feedback in classrooms characterized by a supportive and encouraging tone. Specifically, observation

notes (ON, 12/01/2024) recorded that "the instructor used frequent positive reinforcement and open-ended questioning, which resulted in a noticeable decrease in student hesitation; students were observed raising their hands even when they were unsure of the correct academic phrasing. Students explicitly emphasized the importance of such an environment, with one participant stating. She said,

> *"Lastly, I would suggest creating a more supportive and encouraging learning environment," (Interview, KM12/01/2024)*

Interview data further revealed that this psychological safety enabled students to take intellectual risks essential for learning. As one student explained, a positive instructional approach made them feel "safe to ask questions and share my first draft" despite knowing it was imperfect

> *"In other classes, I'm too scared to show my writing until it's 'perfect.' But here, the lecturer was always so positive, even when giving criticism. It made me feel safe to ask questions and share my first draft, even though I knew it was bad. That's how I learned." (Interview, SA19/01/2024)*

This feeling of safety was a dominant theme in the reflective journals, where students admitted that the classroom 'vibe' reduced their writing anxiety. One student wrote:

> *"I actually felt brave enough to show my rough draft today. Usually, I'm terrified of being judged for bad grammar, but the way the teacher handles mistakes makes it feel like it's okay to not be perfect yet. That safety is what kept me going." (Reflective Journal, RH)*

In addition, observational notes and interviews indicated that the instructor's supportive modeling was mirrored in peer interactions, fostering mutual encouragement within groups. Observation data (ON, 17/01/2024) noted that "groups were heard using inclusive language such as 'let's try this' or 'what do you think?' rather than dismissive remarks, mirroring the instructor's collaborative tone. One participant described this dynamic as "we were all in it together," which helped students cope with the challenges of the project. As one stated that

> *"My group members were also great. Because the professor set the tone, we were all very encouraging to each other. We weren't competing. It felt like we were all in it together, which made the difficult parts of the project much easier to handle." (Interview, DN17/01/2024)*

A journal entry further corroborated how this peer support served as a motivational buffer:

> "The professor's positivity really rubbed off on us. My group didn't criticize each other harshly; we tried to find solutions together. That 'we are in this together' vibe made the hard parts of the project feel much less stressful." (*Reflective Journal,* TH)

From an SDT perspective, these findings demonstrate that a supportive learning environment primarily satisfied the need for Relatedness, while simultaneously enabling Competence by creating the psychological safety necessary for feedback-seeking, revision, and sustained engagement.

Skill Development

Interviews, reflective journals, and classroom observations indicated that participation in PjBL resulted in the development of transferable skills, which students perceived as evidence of increased Competence. Students consistently described the project-based approach as more effective than traditional assignments in fostering skills such as teamwork, leadership, time management, critical thinking, and problem-solving. One participant noted that despite the work being largely project-based, "many skills were then developed" alongside successful assessment outcomes.

> *"Even though the work is done outside the classroom, aka projects, all assessments went well and even in this project mode, many skills were then developed," (Interview, KP12/01/2024)*

This perception of growth was documented in student journals, where they reflected on the diverse competencies gained beyond academic writing. One student wrote:

> *"I realized today that this project is teaching me more than just grammar. I'm learning how to coordinate with different personalities and manage a tight schedule. It feels like I'm gaining professional skills that I can actually use later." (Reflective Journal, KP)*

Observational data supported these perceptions, showing students actively negotiating roles, resolving conflicts, and managing timelines. Observation notes (ON, 18/01/2024) specifically recorded a group discussion where "students were observed using a collaborative digital calendar to synchronize their deadlines, showing a high level of autonomous organizational skill." Interview accounts further illustrated how PjBL required students to apply interpersonal and organizational skills in authentic contexts. For example, one student described how resolving group disagreements "forced us to learn how to compromise and actually listen to each other" . it proven that

> *"My group had a big disagreement about the main topic. At first, it was a mess. But we had to figure it out for the project. It forced us to learn how to compromise and actually listen to each other, which is not something you learn from a textbook." (Interview, AF18/01/2024)*

A reflective journal entry from the same period captured the emotional and cognitive effort behind this compromise:

> *"The argument today was exhausting, but it was a wake-up call. I had to set aside my ego to make sure the project moved forward. Learning to listen to AF's perspective actually made our final argument stronger. I feel more confident in handling group tension now." (SJ, Participant AF)*

Highlighting the practical development of collaborative competence. Others reported assuming leadership and organizational responsibilities, such as scheduling tasks and coordinating group members, which one participant likened to "managing a real project" . here, the statement below

> *"I ended up becoming the 'leader' for our group, just to keep us organized. I had to create a schedule, assign tasks, and make sure everyone met their deadlines. It was like managing a real project, not just a school paper. It was stressful, but I learned so much about time management." (Interview, RZ19/01/2024)*

Classroom observations (ON, 22/01/2024) corroborated this leadership role, noting that "the student designated as 'leader' (RZ) was seen actively facilitating the peer-review session, ensuring each member's section was reviewed against the project rubric. From an

SDT perspective, these findings indicate that PjBL facilitated sustained satisfaction of the need for competence by providing opportunities for mastery, responsibility, and successful task execution in realistic learning contexts.

Equitable Participation

Observation data, supported by interviews and reflective journals, identified equitable participation as a critical challenge in collaborative PjBL and a key condition for fulfilling Relatedness and Competence. Initial classroom observations (ON, 08/01/2024) revealed clear instances of participation imbalance; in several groups, one or two students were observed doing all the talking and typing, while others remained passive, looking at their phones or disengaging from the group circle. Students were highly aware of these inequalities, with one participant noting that instructors sometimes relied on "solidarity" to include less active members in group outcomes:

> *"I feel that if this professor is teaching, there is nothing to doubt even because maybe he knows that sometimes students are not active but because of solidarity their names are still included in the report," (Interview, KK12/01/2024)*

Reflecting sensitivity to issues of fairness Journal entries from quieter students revealed a deep sense of guilt and frustration regarding this "forced" solidarity. One student wrote:

> *"My name is on the paper, but I feel like a fraud. The dominant members didn't give me a chance to help, and now I feel like I haven't learned anything. This 'solidarity' actually makes me feel more disconnected from the group." (Reflective Journal,TH)*

Interview data further showed that unequal participation negatively affected students' motivation and self-perception. One student described feeling marginalized, stating,

> *Just... took over. They decided everything. I had ideas, but it was impossible to get a word in. I just gave up trying. It was awful, I felt useless and ended up just doing what they told me." (Interview, NH20/01/2024)*

This sense of marginalization was corroborated by observation notes (ON, 20/01/2024), which recorded that "Participant NH sat at the edge of the group and did not make eye contact with peers during the decision-making process, appearing to have completely withdrawn from the collaborative task." Illustrating how exclusion undermined both Relatedness and Competence. However, triangulated data also revealed effective instructional strategies to address this issue. When instructors actively structured collaboration by assigning clear roles, students reported more balanced participation and greater confidence in contributing. Observation data (ON, 25/01/2024) showed a significant shift after role assignment: "Each student was observed focused on their specific task—some were searching for sources while others were drafting sections—leading to a more buzz-like, productive atmosphere where every member was active. As one participant explained, role assignment ensured that "everyone had a specific job" and prevented dominant members from taking over.

> *"It was much better when the lecturer assigned roles for the second project. Like, 'you are the researcher,' 'you were*

the editor.' It forced everyone to have a specific job. The dominant students couldn't just do everything, and people like me had a clear way to contribute." (Interview, FA17/01/2024)

A reflective journal entry confirmed how this structural change restored the student's sense of legitimacy:

"Being assigned as the 'editor' gave me a 'shield' against the dominant members. I had a legitimate reason to speak up and correct the draft. For the first time, I felt like my contribution was as important as theirs. It really boosted my confidence." (Reflective Journal, FA)

From an SDT perspective, these findings indicate that equitable participation in PjBL requires active instructor facilitation to protect Relatedness through mutual respect and to support Competence by legitimizing each student's contribution.

The qualitative analysis of all three data sources (student interviews, reflective journals, and classroom observations) revealed six critical themes namely (1) Monitoring and Accountability, (2) Consultation and Feedback, (3) Engagement and Participation, (4) Learning Environment, (5) Skill Development, and (6) Equitable Participation. To provide systematic, triangulated evidence for these themes, data from the classroom observation checklists are summarized below. This matrix cross-references the core psychological needs of SDT with the specific behaviors observed during the PjBL process.

Table 3
Triangulation Matrix of Observed Behaviors (SDT Framework)

SDT Need (Theory) & Key Themes	**Interviews (Perceptions)**	**Reflective Journals (Private Reflections)**	**Observations (Objective Behaviors)**
AUTONOMY (Otonomi) *(Theme 3: Engagement)*	Students *stated* they felt "important" and "motivated" by the real-world relevance of the task (e.g., Interview AA19).	Students *wrote* about their initial debates and choices, linking topic choice to personal interest.	Students *were observed* actively debating topics and self-assigning roles in 8/10 groups.
COMPETENCE (Kompetensi) *(Theme 2, 5: Feedback, Skill)*	Students *requested* "more marking" (AS12) and *stated* that feedback helped them feel "like I could actually get better" (RS17).	Journal entries *tracked* student frustration (e.g., "stuck on intro") which changed to "confidence" after consultation (MK16).	High rates of *feedback-seeking* (approaching instructor) were observed. Peer-teaching behavior was noted.
RELATEDNESS (Threatened) *(Theme 1, 4, 6: Monitoring, Environment, Equity)*	Students *voiced* concern over "dominant students" (FA17) and "social loafing" (NH20), describing feeling "useless".	Journals *revealed* private frustration with group members ("It's unfair, I'm doing all the work").	Social loafing (passive members on phones) and Dominant Students (interrupting peers) were objectively observed in 4/10 groups.
RELATEDNESS (Protected) *(Theme 1, 4, 6: Monitoring, Environment, Equity)*	Students *praised* monitoring as "fair" (BW14) and *advocated* for "assigned roles" (FA17) to ensure equity.	Students *wrote* that the supportive environment ("positive tone") made them feel "safe" to share drafts (SA19).	Helping behaviors and encouragement ("in it together") were observed in groups with clear monitoring and structured roles.

As summarized in Table 3, each theme was supported by systematic triangulation across interviews (perceptions), reflective journals (private reflections), and classroom observations (objective behaviors). This convergence strengthens the credibility of the findings and demonstrates that the identified themes represent stable patterns rather than isolated perceptions. Notably, challenges such as equitable participation and social loafing were consistently observed, reported, and reflected upon, while supportive mechanisms such as monitoring and feedback were similarly confirmed across all data sources.

The interrelationships between the identified themes and their alignment with the Self-Determination Theory (SDT) framework are visually synthesized in Figure 2. This model illustrates how pedagogical interventions in PjBL act as affordances for students' basic psychological needs.

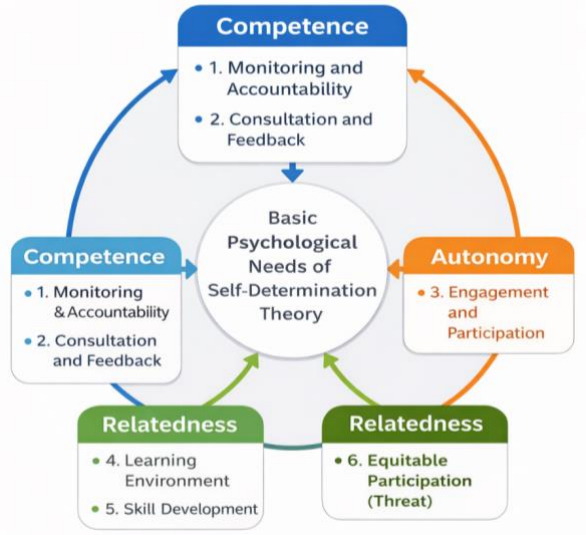


Figure 2. A Proposed Integrated Framework of SDT-PjBL in L2 Writing Context
(Generated from Chat GPT with data prompts on 02/10/2025)

DISCUSSION

This study investigated the integration of Self-Determination Theory (SDT) and Project-Based Learning (PjBL) to revitalize writing education. The findings confirm that while PjBL provides a robust structure for authentic learning, its motivational success is not automatic. Its effectiveness is contingent upon the intentional support of students' basic psychological needs for competence, autonomy, and relatedness. Our six identified themes map directly onto this framework. We found that themes of Skill Development, Monitoring and Accountability, and Consultation and Feedback are primarily linked to the need for competence. The theme of Engagement and Participation (specifically the desire for real-world application) is a clear expression of the need for Autonomy. Finally, the crucial themes of Learning Environment and Equitable Participation are deeply intertwined with the foundational need for Relatedness. However, this mapping revealed a critical theoretical and pedagogical puzzle: the very mechanisms required to protect Relatedness (e.g.,

monitoring) are traditionally theorized to thwart Autonomy. The following discussion explores this central tension

As expected, the findings strongly underscore that PjBL is a powerful driver for competence, but only when scaffolded with high-quality, informational feedback. Students' perception of skill development (Theme 5) was a direct result of engaging in the complex, authentic tasks of PjBL. From an applied linguistics perspective, these tasks resemble situated writing practices in which learners negotiate meaning, audience, and textual conventions through iterative drafting and revision. However, this finding is inseparable from Theme 2 (Consultation and Feedback). Students' desire for diversified and direct feedback (e.g., "markup our papers") reflects a known principle of SDT: challenging tasks (like PjBL) only build competence if they are paired with autonomy-supportive feedback that is informational, not controlling (Brenner, 2022; Makkonen et al., 2021). In writing pedagogy, such feedback functions as formative mediation that helps learners notice gaps between intended meaning and linguistic realization. Without this, the challenge of PjBL could overwhelm and thwart competence.

Furthermore, the theme of Autonomy was expressed not just as "choice," but as a desire for relevance. Students' call for "real-world examples" (Theme 3) aligns with the SDT concept of identified regulation. A powerful form of autonomous motivation where students engage because they personally value the task's utility (Guay, 2022; Wang et al., 2019). This finding resonates with task-based and genre-based approaches in applied linguistics, which emphasize meaningful language use anchored in authentic social purposes. This finding clearly demonstrates that for these students, autonomy was experienced as 'purpose' rather than just 'freedom'.

This is why "Monitoring and Accountability" (Theme 1) was perceived positively. While classic SDT (Deci & Ryan, 2000; Deci & Ryan, 1985) often posits that external monitoring is a "controlling" act that thwarts Autonomy, our findings reveal a crucial nuance: students perceived monitoring as "informational" rather than "controlling." Specifically, it functioned as a "protective mechanism" that secured Relatedness by preventing social loafing and ensuring group fairness. Consequently, monitoring did not undermine Autonomy; instead, it served as a pedagogical safeguard that maintained the psychological safety necessary for collaborative success (Araujo Dawson et al., 2022; Deredzai & Goronga, 2025; Johnson et al., 2020; Robinson & Held, 2025). This suggests that in high-stakes PjBL, active instructor intervention is not a threat to student freedom, but a prerequisite for a fair and motivating learning environment.

Despite traditional SDT views on external control, the findings on Equitable Participation (Theme 6) explain why Monitoring (Theme 1) was perceived positively. Crucially, monitoring functioned as an informational and protective tool rather than a controlling one, directly addressing student marginalization. Thus, it secured the fairness and relatedness necessary for a motivating PjBL environment

From a pedagogical standpoint, these findings imply that PjBL in writing instruction should be designed with explicit role assignments, transparent monitoring mechanisms, and consistent formative feedback. Such strategies help instructors operationalize SDT principles while maintaining equity in collaborative writing processes. Finally, these findings should be interpreted in light of several limitations. This study was conducted within a single institutional writing program, and the motivational dynamics observed may be influenced by contextual and cultural factors. Further research is needed to explore whether similar patterns emerge across disciplines, educational levels, or sociocultural contexts.

CONCLUSION

This study investigated the revitalization of writing education by integrating Self-Determination Theory (SDT) with Project-Based Learning (PjBL). Findings demonstrate that PjBL supports psychological needs in nuanced, interdependent ways. Competence is fostered through skill development paired with formative feedback, while Autonomy is satisfied through task relevance rather than mere choice. A primary theoretical contribution of this work is identifying Relatedness as the most vulnerable need in collaborative settings, significantly threatened by inequitable participation. Crucially, and counter-intuitive to classic SDT assumptions, "Monitoring and Accountability" was perceived positively. Students viewed it as an informational and protective mechanism that secured group fairness and prevented social loafing, rather than a controlling tool. Pedagogically, educators must manage PjBL through an SDT lens, utilizing active interventions like structured roles and transparent monitoring to protect group cohesion. Future research should quantitatively correlate SDT need satisfaction with specific writing outcomes and explore scalable strategies for managing participation equity. Ultimately, PjBL success is contingent upon intentionally scaffolding students' psychological needs to create a revitalized, fair, and motivating learning environment.

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