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From Collaboration to Transformation: Exploring Collaborative Planning and Reflection Process among PYP Educators in Türkiye

Ebru Hezen*
Curriculum and Instruction, İhsan Doğramacı Bilkent University, Ankara, Türkiye
ORCID: 0000-0001-6630-9404

Alipaşa Ayas
Curriculum and Instruction, İhsan Doğramacı Bilkent University, Ankara, Türkiye
ORCID: 0000-0002-4898-2918

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This study explores how teachers in a school implementing the Primary Years Programme (PYP) - first as a candidate school and subsequently as an authorized school - developed their understanding of transformative learning characteristics through sustained participation in collaborative planning and reflective dialogue facilitated through online discussions. A concurrent transformative mixed-methods design was employed, with qualitative and quantitative data collected simultaneously between 2017 and 2024 in a PYP school in Istanbul. Quantitative data were gathered from 68 teachers using the Professional Learning Community Collaborative Team Survey (CTS) (Colvin, 2013), while qualitative data were obtained through semi-structured interviews with eight grade-level coordinators. The study examined participation in inquiry-based collaborative processes and to examine how teachers' pedagogical thinking evolved in alignment with transformative learning theory. Repeated-measures analyses revealed that statistically significant differences between pre-test and post-test scores across transformative learning subscales. Qualitative results indicated that as teachers' participation in structured collaborative planning and online dialogue deepened, they engaged more critically in reflective practice, demonstrated more sophisticated professional reasoning, and made more informed pedagogical decisions. The findings further suggest that the school's systematic structuring of participatory collaborative practices contributed to the school's IB authorization process. Overall, the study highlights the potential of sustained and structured teacher participation in collaborative inquiry, supported by online platforms, to foster transformative professional growth within PYP contexts.

Introduction

Since the early 20th century, the concept of professional learning communities (PLCs) has evolved significantly, grounded in the view that learning is both individual and social. Dewey (1938) emphasized the social nature of learning, while DuFour and Eaker (1998) advanced PLCs as a model for school improvement centered on collaborative teams. Argyris

* Correspondency: ehezen@bilkent.edu.tr

and Schön (1978) highlighted how individual learning can be transformed at the organizational level, and Senge (1990) conceptualized schools as continuously learning organizations. Within this framework, PLCs are understood as social structures that bring together teachers for collaborative, experience-based professional learning (Glaze-Crampes, 2020).

Structured around interaction, PLCs also foster individual reflection and transformation. Dewey (1933) defined learning as growth through experience, while Schön (1983) introduced reflection-in-action and reflection-on-action to capture the iterative nature of teacher decision-making. Van Manen (1991) added reflection-for-action, emphasizing pedagogical foresight. Collectively, these models position reflective thinking as a recursive rather than linear process (Wilson, 2008; Uzum, Petron, & Berg, 2014).

Within reflective and collaborative professional learning environments, teachers are not only engaged in improving instructional practices but also in questioning the assumptions that shape their pedagogical decisions. Such processes of critical reflection have been widely recognized as a catalyst for deeper professional learning and transformation (Avalos, 2011; Vescio, Ross, & Adams, 2008). In this sense, reflection moves beyond a technical or procedural activity and becomes a transformative process that challenges existing frames of reference. Building on this perspective, Mezirow's Transformative Learning Theory (TLT) provides a theoretical lens for understanding how teachers critically reconstruct their pedagogical beliefs and practices.

Building on this, Mezirow's Transformative Learning Theory (TLT) offers a pathway not only for instructional change but also for shifts in identity, belief systems, and values. TLT emphasizes critical reflection on frames of reference to foster more inclusive worldviews (Mezirow, 1991, 2000). Taylor (2000, 2008, 2015) expanded TLT by stressing the emotional, interpersonal, and contextual nature of transformation, situating meaning-making in cultural and historical contexts. His hermeneutic lens reframes transformation as relational and situated. Similarly, O'Sullivan (1999) extended transformative learning by positioning it as an interconnected phenomenon across personal, societal, and ecological dimensions, highlighting its potential for cultural diversity and global responsibility.

Recent research shows transformative learning's multifaceted impact on teacher development. Rather than merely acquiring knowledge and skills, teachers undergo profound transformations in their professional identity and pedagogical beliefs (Taylor, 2023; Eschenbacher & Fleming, 2020). Through critical reflection, they re-evaluate practices, relationships with students, and classroom environments (Dirkx, 1998; Sujarwanto et al., 2022). Transformation is not purely cognitive; it is also emotional and contextual (O'Sullivan, 2012). Ultimately, transformative learning positions teachers as reflective practitioners - active meaning-makers capable of innovation and responsiveness (Cranton, 2006; Mei et al., 2022).

Transformative learning is not solely individual; it is strengthened within collective environments such as PLCs. While TLT provides a framework for reshaping beliefs and decision-making, sustainable transformation emerges through collaboration and reflection. Core features of PLCs - collaboration, dialogue, relational engagement, and contextual awareness (Louis et al., 1995; Fullan, 2001) - align closely with TLT's critical reflection (Mezirow, 2000). Viewed through this lens, PLCs function as dialogic communities where diverse perspectives converge to foster inquiry and pedagogical transformation.

This convergence of theory and practice is evident in International Baccalaureate (IB) programmes, which conceptualize learning as a socially constructed process. The IB defines the learning community as an inclusive space where students, teachers, families, and staff engage in reciprocal learning (IBO, 2018a). Learning emerges from dialogic interactions within and beyond school. This vision aligns with TLT's relational and contextual emphasis and mirrors the collaborative, inquiry-oriented nature of PLCs. The IB learning community thus represents a practical realization of TLT, integrating transformative learning with PLC structures. This model empowers teachers and students to reframe beliefs, reconstruct identities, and co-create a culture of transformative learning.

The IB's pedagogical model exemplifies the integration of transformative learning within inquiry-based communities. Across its four programmes - PYP, MYP, DP, and CP - the IB promotes a holistic and participatory approach grounded in the social nature of learning (IBO, 2018a). Schools implement the IB through a progression of institutional stages: interested, candidate, and authorized status, ensuring systemic capacity-building aligned with IB standards (IBO, 2018c). Within this, the PYP foregrounds collaborative planning as a norm fostering reflective thinking, transdisciplinary inquiry, and socially situated pedagogy. These practices build professional communities where teachers co-construct meaning, develop trust, and evolve into reflective educators (IBO, 2024). Taylor's layered understanding of transformation finds expression here: it occurs through dialogic interaction, shared responsibility, and collective meaning-making.

Despite the rich foundations of PLCs and reflective practice, empirical research on their enactment within IB contexts - particularly the PYP - remains limited. Only two studies have explored collaborative planning in IB programmes, with only one focusing on the PYP (Saa'd AlDin, 2014; Khairallah, 2015). Khairallah (2015) found that many PYP teachers struggled to bridge theory and practice, resulting in planning that lacked depth and coherence. These findings highlight the need to examine how teachers experience collaborative planning and reflection as transformative processes in IB schools.

The global expansion of the IB continues, with over 8,000 programmes in 5,900 schools across 160 countries as of October 2024 (IBO, 2025a). In Türkiye, 72 schools had authorization to implement the PYP by 2025 (IBO, 2025b), reflecting growing interest in inquiry-based pedagogies. Yet translating IB principles into classroom practice remains challenging. Structural and cultural barriers hinder implementation, especially when teachers have limited exposure to inquiry-driven approaches. In Türkiye, many educators retain behaviorist orientations and struggle to internalize constructivist pedagogy, compounded by teacher education programs with minimal focus on constructivist methods (Demir & Yıldırım, 2017).

In this context, transforming teachers' pedagogical beliefs is essential for authentic PYP implementation. Such transformation cannot rest on individual efforts alone - it must be supported through collaborative planning and reflective processes embedded in PLCs. While the PYP envisions teachers as active learners engaged in collective meaning-making (IBO, 2018b), research suggests that teachers face theoretical and practical challenges (Khairallah, 2015). These challenges underscore the need for deeper empirical inquiry into how PLCs function as transformative spaces within the PYP.

This study investigates the professional transformation of PYP teachers in a Turkish school operating as a Professional Learning Community (PLC), with a particular focus on teachers'

participation in structured collaborative processes. It has two main aims: (1) to support the school's effective implementation of the PYP by fostering sustained and structured teacher participation in collaborative planning and reflective dialogue, and (2) to examine how teachers' understandings of inquiry-based pedagogy evolve over time through their active engagement in these participatory processes.

Drawing on Mezirow's Transformative Learning Theory (TLT), teacher learning is conceptualized as a multidimensional process - cognitive, social, cultural, and emotional - shaped by sustained professional participation throughout the IB school's candidacy and authorization phases. While Mezirow's foundational work (1991, 2000) positions critical reflection as central to transforming frames of reference, more recent research has emphasized the relational, affective, and context-dependent nature of transformative learning in professional settings (Eschenbacher & Fleming, 2020; Fleming, 2022; Hoggan, 2016). Contemporary research further suggests that transformative learning in educational contexts involves not only shifts in individual cognition but also changes in professional identity, agency, and participation within learning communities. In this regard, TLT continues to offer a relevant and evolving theoretical lens for examining how teachers reinterpret their experiences, reconstruct pedagogical beliefs, and engage in sustained professional transformation.

Method

Research Design

This study, grounded in Mezirow's TLT, adopted a concurrent transformative mixed-methods case study design. Aligned with Creswell and Plano Clark's (2011) framework, this design integrates qualitative and quantitative data collection and analysis simultaneously within a predetermined theoretical lens. Emphasizing social justice, equity, and pedagogical transformation (Mertens, 2009), it aims to amplify participant voices and foster contextual change. The research was implemented as a longitudinal single-case study to explore the cognitive, social, cultural, and emotional transformation of teachers' pedagogical understanding through their engagement in collaborative planning and reflection in a PYP school in Türkiye. A longitudinal single-case study design was selected to capture the processual and evolving nature of teacher transformation over time within its real-life institutional context, enabling an in-depth and context-sensitive examination of how collaborative planning and reflective practices develop and influence pedagogical change across phases. To address these aims, quantitative pre- and post-test data were used to assess changes in teachers' perceptions of six key characteristics of transformative learning: individual experience, critical reflection, dialogue, holistic orientation, contextual awareness, and authentic relationships. These dimensions are further examined through qualitative data from pre-, post-, and follow-up interviews, illustrating how teachers' participation in collaborative inquiry deepens and transforms across time.

Context and the Research Process

This study was conducted in a private PYP candidate school in Istanbul between 2017 and 2024. The school, authorized as an IB World School in 2018, serves students from kindergarten to Grade 4 and is located in a privileged area. With over 30 years of institutional history, it had previously implemented the national curriculum through predominantly

teacher-centered practices. Transitioning to the PYP marked a significant pedagogical reorientation toward inquiry-based, constructivist learning.

The researcher, an experienced PYP educator and IBEN member since 2007, served as the school's PYP coordinator. In this role, the researcher was actively involved in the design, facilitation, and ongoing coordination of the collaborative planning and reflective processes examined in the study. This insider role provided privileged access to planning structures, pedagogical processes, and teacher development, enabling close observation and facilitation of collaborative planning sessions and online reflective discussions. Drawing on her IB experience and awareness of challenges in shifting from behaviorist to constructivist pedagogies - highlighted in national reform literature (Turan, 2021) - she designed the study to explore how structured collaboration and reflection support pedagogical transformation in the Turkish PYP context.

The study unfolded over three phases, aligned with key milestones: candidacy, authorization, and IB evaluation. Each phase captured a layer of the school's pedagogical evolution and required sustained commitment. The following section details how collaborative structures and reflective practices supported long-term professional growth and transformation.

Phase 1: Readiness and Baseline Context (June 2015 – June 2017)

Following its acceptance as a PYP candidate in June 2015, the school began aligning practices with the IB philosophy. In 2015–2016, a school-developed Programme of Inquiry was introduced; however, teaching remained largely activity-based and fragmented. Weekly 40-minute planning meetings were held, but inquiry and reflection were treated as separate processes. While a gradual movement toward student-centered practices was observed, it remained inconsistent and superficial.

In 2016–2017, collaborative planning continued with similar patterns. Teachers became more familiar with IB language and assessment practices, yet authentic inquiry remained challenging. Teaching was still guided by thematic activity lists rather than inquiry cycles and progressions. Despite this, the school demonstrated commitment by organizing in-school Category 1 and 2 IB workshops and maintaining low teacher turnover, enabling sustained professional development.

Before implementation of the online planning model, the CTS pre-test and pre-interviews were conducted in April 2017.

Phase 2: Design and Implementation of the Online Collaborative Planning Model (April 2017 – February 2018)

Building on the school's readiness, the researcher designed a collaborative planning model based on Murdoch's (2015) inquiry cycle, incorporating reflection before, during, and after inquiry. The model was refined through feedback from three experienced PYP coordinators, also IBEN Members, in June 2017.

Implemented over 18 weeks between September 2017 and January 2018, the model was facilitated through asynchronous discussions on Canvas. Teachers received training (August 2017) and engaged in structured dialogues using guiding questions aligned with the inquiry cycle. These online spaces enabled flexible participation, peer learning, and documentation of reflective thinking. A total of 54 of 68 teachers consistently contributed to collaborative

planning across 19 units of inquiry implemented during a half-semester in preschool and primary levels.

In February 2018, the CTS post-test and post-interviews were completed to examine changes in teachers' perceptions and practices.

Phase 3: Longitudinal Follow-Up and Evaluation (February 2024)

To assess the sustained impact of the planning model, follow-up interviews were conducted in February 2024, during the school's five-year IB evaluation.

Participants

The study included 68 teachers from a private PYP candidate school in Istanbul, selected through convenience sampling - an appropriate strategy for in-depth case studies (Cohen et al., 2007). In case study research, convenience sampling enables access to participants who are directly involved in the phenomenon under investigation and allows for the generation of rich, contextually grounded data within a bounded system (Merriam, 2009; Yin, 2014). Participants comprised 18 kindergarten (26.5%) and 18 primary homeroom teachers (26.5%), 16 additional language teachers (23.5%), four music and four physical education teachers (each 5.9%), three visual arts teachers (4.4%), three school counselors (4.4%), and two ICT teachers (2.9%). Most were new to the PYP, with only one having prior experience. Participation was voluntary and conducted in adherence to ethical standards.
In the quantitative phase, 68 teachers participated in the CTS pre-test. Although the CTS could not be re-administered at the follow-up stage due to 35% staff turnover, qualitative data from grade-level coordinators offered insights into pedagogical continuity, adaptation, and the sustained impact of collaborative planning.

In the qualitative phase, eight coordinators were purposively selected to reflect diverse subject areas and combined roles in teaching and leadership. All joined pre- and post-interviews, while six participated in follow-ups due to turnover. Follow-up interviews were conducted online because of geographical constraints.

Data Collection Tools

Quantitative data were collected using the "Professional Learning Community Collaborative Team Survey (CTS)" developed by Colvin (2013), a validated tool grounded in Mezirow's Transformative Learning Theory. The 68-item instrument uses a 4-point Likert scale with six subscales: individual experience, critical reflection, dialogue, holistic orientation, contextual awareness, and authentic relationships. An example item, "Team members consider different perspectives," reflects the critical reflection subscale. The CTS was translated into Turkish using a forward–backward method with support from an education specialist, while foreign language teachers could complete the English version. Cronbach's alpha coefficients ranged from .72 to .91, consistent with the original validation (α = .78–.92).

Qualitative data were gathered via a semi-structured interview protocol developed by the researcher, guided by Mezirow's framework and Murdoch's (2015) inquiry cycle. It included demographic items and nine open-ended questions with 17 prompts on collaborative planning and inquiry. Content validity was ensured through IBEN expert review and a pilot with two teachers from another PYP candidate school. Based on feedback, revisions improved clarity

and relevance. The final protocol was used across three phases; pre-, post-, and follow-up with contextual adaptations for each.

Data Analysis

Quantitative data were analyzed using SPSS 22.0. Survey responses were digitized and verified for accuracy. Mean scores were computed for each subscale of the Collaborative Team Survey (CTS), and normality was confirmed via skewness and kurtosis values within the ±1.96 range (Field, 2005). Based on this, paired samples t-tests compared pre-test and post-test scores, revealing statistically significant improvements across several subscales.

To strengthen validity and ensure comprehensive interpretation, qualitative data were incorporated using a triangulation strategy (Cohen et al., 2007). Interview transcripts (pre-, post-, and follow-up) were transcribed verbatim, transferred to Excel, and coded by participant, phase, question, and theme. A total of 198 coded segments were analyzed through a theory-driven thematic approach (Boyatzis, 1998), using Mezirow's TLT as the analytical lens. As some segments reflected more than one transformative learning characteristic, multiple coding was applied, resulting in a total coded frequency of 337. An initial content analysis of the literature and interview data identified six core themes of transformative learning - individual experience, contextual awareness, dialogue, holistic orientation, authentic relationships, and critical reflection - represented through 20 interrelated codes. Among these, individual experience emerged as the most frequent theme, while promoting critical reflection consistently appeared across categories, underscoring its centrality. This thematic structure provided the coding scheme for analysis and served as the theoretical lens guiding both quantitative and qualitative interpretation. Codes were refined into higher-order categories using MAXQDA 2022, with frequency, co-occurrence, and pattern visualizations supporting interpretation. In this study, frequency counts were not used as a standalone measure, but as an analytical aid to identify patterns across phases and support the interpretation of themes within a theory-driven framework. This approach allows for a relational reading of the data, linking the prevalence of codes to changes in teachers' meaning-making processes over time, while preserving the interpretive depth of qualitative analysis. To enhance reliability, a second experienced PYP coordinator independently coded the dataset after calibration on a pilot transcript, yielding 96% intercoder agreement.

Identifying Themes and Codes through the Lens of the Theoretical Framework

A content analysis of the literature yielded six core themes and 20 associated codes representing key characteristics of transformative learning: individual experience, contextual awareness, dialogue, holistic orientation, authentic relationships, and critical reflection. The frequency distribution of these themes and codes is presented in Table 1.

Table 1. Themes and codes generated from content analysis of transformative learning characteristic definitions in the literature

Themes	Codes	(f)
Individual experience *(f=27)*	A learner's normative expectations	9
	Experience created within the classroom	8
	A learner's value judgements	5
	Promoting critical reflection	4
	Prior experience	1
Awareness of context *(f=14)*	Personal understanding	5
	Sociocultural understanding	4
	Personal / sociocultural understanding	3
	Dialogue	1
	Promoting critical reflection	1
Dialogue *(f=14)*	Dialogue with the self and others openly	6
	Agreement on judgements and new perspectives	3
	Promoting critical reflection	3
	Provide information and make meaning	2
Holistic orientation *(f=10)*	Awareness of feelings and emotions	5
	Ways of knowing and learning	5
Authentic relationships *(f=9)*	Achieve greater mutual and consensual understanding	3
	Positive and productive relationships with others	3
	Have questioning discussions	1
	Promoting critical reflection	1
	Share information openly	1
Promoting critical reflection *(f=8)*	Awareness of why we perceive - premise	3
	Reflecting on what we perceive, think, feel and act - content	3
	Reflecting on how we perform the functions of perceiving - process	2
	Total (f)	82

As shown in Table 1, "Individual experience" was the most frequent theme (f = 27), followed by "Awareness of context" and "Dialogue" (each f = 14). Prominent codes included “A learner’s normative expectations” (f = 9) and “Experience created within the classroom” (f = 8). Some codes appeared under multiple themes, reflecting conceptual overlaps within the transformative learning framework.

A comparative analysis was conducted to examine code distributions across the pre-, post-, and follow-up interviews. Table 2 presents code frequencies by theme, based on an analysis guided by transformative learning theory.

Table 2. Code frequencies by interview phase based on theory-driven analysis of transformative learning characteristics

Themes	Pre-interview (f)	Post-interview (f)	Follow-up interview (f)
Promoting critical reflection	44	32	17
Holistic orientation	37	33	14
Individual experience	34	36	16
Awareness of context	21	23	6
Authentic relationships	9	4	1
Dialogue	6	4	0
Total (f=337)	151	132	54

As shown in Table 2, “Promoting critical reflection” had the highest code frequency (f = 93), followed by “Individual experience” (f = 86) and “Holistic orientation” (f = 84). Although total codes declined from the pre-interview (f = 151) to the follow-up (f = 54), this reflects a

transition toward more integrated and conceptually cohesive responses, rather than a loss of insight.

Early responses reflected surface-level understandings across multiple themes, whereas follow-up interviews demonstrated deeper, more focused reflections - indicating growth in conceptual and pedagogical engagement. The study's longitudinal design revealed thematic shifts over time, with increased depth and coherence in later responses, likely facilitated by sustained collaborative planning and reflective practice. This progression was evident not only in code frequencies but also in the quality and density of codes, as visualized in MAXQDA's thematic maps.

Results

The findings are organized around six core dimensions of transformative learning. Quantitative results came from pre-test and post-test comparisons, while qualitative data were analyzed through theory-driven coding across interview phases. Each theme is presented with statistical outcomes and illustrative qualitative insights to show changes in teachers' understanding over time.

It is important to note that variations in code frequencies across interview phases, including zero frequencies in some categories, should not be interpreted as the absence or loss of these characteristics. Rather, these patterns reflect changes in how teachers understood and articulated their experiences over time, rather than linear increases or decreases. This pattern can be observed across Tables 5, 6, 7, and 8.

Promoting Critical Reflection

Table 3 presents the quantitative and qualitative findings related to the promoting critical reflection dimension of transformative learning. The table combines pre- and post-test comparisons with interview data across the three phases, illustrating how teachers' critical reflection evolved over time.

Table 3. Quantitative and qualitative results for the theme of promoting critical reflection

Subscale scores from pre-test and post-tests										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Promoting critical reflection	2.95	0.19	3.68	0.19	68	-27.70	67	.000	3.84	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Reflecting on what we perceive, think, feel and act - content								9	6	7
Reflecting on how we perform the functions of perceiving - process								25	19	9
Awareness of why we perceive - premise								10	7	1
Total (f=93)								44	32	17

There was a statistically significant difference between pre-test (M = 2.95, SD = 0.19) and post-test scores (M = 3.68, SD = 0.19) on the critical reflection subscale, t(67) = -27.70, p < .001, with a large effect size (Cohen's d = 3.84). The qualitative analysis revealed three codes: content (reflecting on what we perceive, think, feel, and act), process (how we perform the functions of perceiving), and premise (awareness of why we perceive). The process code

was the most frequent across all interview phases: pre (f = 25), post (f = 19), and follow-up (f = 9). It was followed by content: pre (f = 9), post (f = 6), and follow-up (f = 7); and premise: pre (f = 10), post (f = 7), and follow-up (f = 1).

Interview data revealed a progressive deepening of teachers' critical reflection. In terms of content reflection - what teachers perceive, think, feel, and do - Phase 1 responses were surface-level, stressing structural barriers: *"We're not quite able to reach common ground yet" (p3); "The school needs to step outside of its traditional, familiar structure. These processes require more time" (p4)*. By Phase 2, digital tools fostered more purposeful reflection: *"I feel like planning has become more settled; we're sharing more, and I think we're progressing more in that sense" (p4)*. In Phase 3, reflections linked planning directly to student learning: *"We're now better able to track the stages of the inquiry cycle... and how students apply what they've learned in real-life contexts" (p1)*.

For process reflection, Phase 1 highlighted logistical obstacles: *"We can't come together often for collaborative planning... We try to meet up after tutoring hours, but it's hard" (p1)*, alongside calls for digital collaboration: *"It would have been better if we could work together online using specific platforms" (p6)*. In Phase 2, structured online tools improved efficiency: *"Thanks to Canvas and Drive, our teachers came well-prepared... the sessions became much more productive" (p3)*; *"...we were able to reach each other's ideas quickly and discuss common points without being in the same physical space" (p5)*. By Phase 3, the emphasis shifted to classroom impact: *"Now, we're able to activate every child and make them feel their ideas matter. That really boosts their confidence" (p1)*.

Premise reflection, though less frequent, marked deeper pedagogical change. In Phase 1, concerns were logistical: *"Meetings are scheduled at the end of the day on Fridays... they're not very productive" (p5)*. In Phase 2, awareness began to emerge: *"Using Canvas, we realized how much inquiry turned into action... That was a valuable shift" (p7)*. By Phase 3, teachers articulated epistemological transformations: *"We used to say, 'a first-grade student is this, a fourth-grade student is that.' But after PYP, we learned that a first grader can demonstrate what's expected from a fourth grader and vice versa... That realization gave us so much more freedom in planning" (p3)*.

Holistic Orientation

Table 4 presents the quantitative and qualitative findings related to the holistic orientation dimension of transformative learning. The results illustrate how teachers developed a more integrated understanding of learning, emotions, and collaborative practice over time.

Table 4. Quantitative and qualitative results for the theme of holistic orientation

Subscale scores from pre-test and post-test										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Holistic orientation	3.20	0.31	3.40	0.28	68	-7.82	67	.000	.67	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Ways of knowing and learning								26	30	13
Awareness of feelings and emotions								11	3	1
Total (f=84)								37	33	14

There was a statistically significant difference between pre-test (M = 3.20, SD = 0.31) and post-test scores (M = 3.40, SD = 0.28) on the holistic orientation subscale, t(67) = -7.82, p < .001, with a large effect size (Cohen's d = 0.67). The qualitative analysis revealed two codes: ways of knowing and learning, and awareness of feelings and emotions. The ways of knowing code was the most frequent across all interview phases: pre (f = 26), post (f = 30), and follow-up (f = 13). It was followed by the awareness of feelings and emotions: pre (f = 11), post (f = 3), and follow-up (f = 1).

A holistic orientation in ways of knowing and learning progressed across phases. In Phase 1, collaboration was fragmented: *"We can only meet if a couple of teachers happen to be available" (p1)*, with meetings reduced to reporting: *"Our meetings are just spaces where teachers explain what they're doing" (p3)*. By Phase 2, discussions became structured around the inquiry cycle: *"All teachers at that level discuss what they've taught and what they'll teach... we talk through each stage of the inquiry cycle" (p1)*. Digital platforms enriched this process: *"Using Canvas allowed us to follow students' development and translate planning into action" (p5)*. In Phase 3, planning was more interdisciplinary and collegial: *"We start inquiry with a strong plan... we build links across disciplines and learn from each other" (p4)*. Technology further enhanced accessibility: *"Even if we're not at the same table, we're on the same screen. That really improved accessibility and productivity" (p7)*.

Awareness of feelings and emotions reflected transition from anxiety to confidence. Initially, teachers expressed stress: *"Reflective thinking initially felt different and difficult... we're tired and bored by the end of the week" (p1)*; *"When I first joined, I was very anxious about doing PYP... Everyone was inexperienced" (p2)*. In Phase 2, emotional confidence grew: *"Collaborative planning became like a miracle for our school. We now see ourselves as more experienced" (p2)*; *"This programme really strengthened our self-belief. It was truly beneficial" (p8)*. By Phase 3, emotions were less pronounced, suggesting institutional maturity: *"In the early meetings, it was harder... the school had its own way of doing things, and everyone was just trying their best" (p7)*.

Individual Experience

Table 5 presents the quantitative and qualitative findings related to the individual experience dimension of transformative learning. The findings demonstrate how teachers' prior experiences, expectations, and value judgments evolved through participation in collaborative planning and reflection.

Table 5. Quantitative and qualitative results for the theme of individual experience

Subscale scores from pre-test and post-test										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Individual experience	3.46	0.36	3.63	0.27	68	-6.21	67	.000	.53	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Prior experience								6	5	3
A learner's normative expectations								18	16	10
A learner's value judgements								10	14	3
Experience created within the classroom								0	1	0
Total (f=86)								34	36	16

There was a statistically significant difference between pre-test (M = 3.46, SD = 0.36) and post-test scores (M = 3.63, SD = 0.27) on the individual experience subscale, t(67) = -6.21, p < .001, with a medium effect size (Cohen's d = 0.53). The qualitative analysis revealed four codes: prior experience, a learner's normative expectations, a learner's value judgements, and experience created within the classroom. The code a learner's normative expectations was the most frequent across all interview phases: pre- (f = 18), post- (f = 16), and follow-up (f = 10). It was followed by a learner's value judgements: pre- (f = 10), post- (f = 14), and follow-up (f = 3); and prior experience: pre- (f = 6), post- (f = 5), and follow-up (f = 3). The code experience created within the classroom was expressed only once, during the post-interview (f = 1).

Individual experience emerged as a core dimension of transformative learning, shaped by prior beliefs and classroom realities. Early accounts conveyed skepticism: *"We heard about the burden - how much evidence is required, how meetings go late into the night. There's so much hearsay" (p3)*. Participation gradually dispelled these fears: *"It's heartening to see how far we've come... those early moments of confusion and hesitation are long gone" (p7)*. By Phase 3, teachers described a collective pedagogical transition: *"We've transitioned from being transmitters to co-learners with our students. Even the definition of 'teacher' feels transformed" (p7)*.

Normative expectations evolved from unmet commitments to collaborative synergy. Initially, concerns centered on equity: *"I'd like to see everyone contribute equally... and receive feedback if they don't" (p7)*. In Phase 2, time constraints persisted despite digital support: *"Canvas helps, but we still need more time to plan more effectively" (p6)*. By Phase 3, expectations became more relational: *"Each of us brings something valuable - planning doesn't follow a single track anymore" (p4)*.

Value judgments revealed the clearest transformation. Resistance dominated early views: *"I was strongly opposed... I'm a PE teacher, not an art teacher to keep collecting drawings as evidence" (p3)*. By Phase 2, teachers engaged in self-evaluation: *"I consider myself a reflective PYP teacher now… I evaluate myself and adopt good practices from others" (p4)*. In Phase 3, this became sustained practice: *"I've realized what I lacked… and as I developed myself, I became more involved in collaborative planning" (p4)*.

Classroom-created experiences, though less common, showed how space influenced pedagogy: *"Since our classrooms are not effective, we sometimes have to move into the*

hallway" (p3). Such reflections highlight the embodied nature of professional learning.

Awareness of Context

Table 6 presents the quantitative and qualitative findings related to the awareness of context dimension of transformative learning. The results highlight changes in teachers' personal and sociocultural understanding across the three phases.

Table 6. Quantitative and qualitative results for the theme of awareness of context

Subscale scores from pre-test and post-test										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Awareness of context	3.21	0.35	3.45	0.28	68	-9.33	67	.000	.75	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Personal understanding								19	17	6
Socio-cultural understanding								2	6	0
Total (f=50)								21	23	6

There was a statistically significant difference between pre-test (M = 3.21, SD = 0.35) and post-test scores (M = 3.45, SD = 0.28) on the awareness of context subscale, $t(67) = -9.33$, $p < .001$, with a large effect size (Cohen's d = 0.75). The qualitative analysis revealed two codes: personal understanding and socio-cultural understanding. The code personal understanding was the most frequent across all interview phases: pre- (f = 19), post- (f = 17), and follow-up (f = 6). It was followed by socio-cultural understanding: pre- (f = 2), post- (f = 6), and follow-up (f = 0).

Regarding personal understanding, Phase 1 reflections revealed compartmentalized thinking, with collaborative planning and reflective thinking perceived as separate: *"These are processes that are supposed to happen together, but we're forced to carry them out separately" (p1)*; *"Actually, I see them as somewhat separate" (p8)*. By Phase 2, this fragmented view gave way to integration: *"I think there's a strong link between collaborative planning and reflective thinking. I don't see them as independent. One supports the other" (p4).* In Phase 3, reflections became more metaphorical and self-aware: *"Collaborative planning is how teachers move together toward helping students become stronger individuals. Reflection is what helps us cover the holes and remove the stones from that path" (p3)*. These responses indicate greater ownership and a contextualized understanding of growth.

For sociocultural understanding, Phase 1 showed conceptual ambiguity: *"At this point, I wouldn't say I can define it. We're still trying to figure out what reflective thinking really means and how much we're actually doing it" (p8)*. By Phase 2, this progressed toward shared responsibility: *"Compared to last year, this year we're making decisions together with the homeroom teachers and moving forward as a team" (p3)*; *"We don't think separately anymore; we think together" (p6)*. These illustrate a move from fragmented practice to collective cognition, reflecting an emerging sociocultural awareness of interdependence.

Authentic Relationships

Table 7 presents the quantitative and qualitative findings related to the authentic relationships dimension of transformative learning. The findings illustrate how collaboration, trust, and shared understanding developed through sustained professional interaction.

Table 7. Quantitative and qualitative results for the theme of authentic relationships

Subscale scores from pre-test and post-test										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Authentic relationships	3.49	0.37	3.70	0.22	68	-6.37	67	.000	.69	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Share information openly								1	2	0
Have questioning discussions								1	0	0
Positive and productive relationships with others								3	0	0
Achieve greater mutual and consensual understanding								4	2	1
Total (f=14)								9	4	1

There was a statistically significant difference between pre-test (M = 3.49, SD = 0.37) and post-test scores (M = 3.70, SD = 0.22) on the authentic relationships subscale, $t(67) = -6.37$, $p < .001$, with a large effect size (Cohen's d = 0.69). The qualitative analysis revealed four codes: achieving mutual and consensual understanding, positive and productive relationships with others, sharing information openly, and having questioning discussions. The code achieving mutual and consensual understanding was the most frequent across all interview phases: pre- (f = 4), post- (f = 2), and follow-up (f = 1). It was followed by positive and productive relationships with others: pre- (f = 3), post- (f = 0), and follow-up (f = 0); sharing information openly: pre- (f = 1), post- (f = 2), and follow-up (f = 0); and having questioning discussions was expressed only once, during the pre-interview (f = 1).

A key marker of authentic relationships was teachers' willingness to share information openly. In Phase 1, this was emergent: *"Everyone expresses what they can do and their thoughts" (p4)*, signaling initial psychological safety. By Phase 2, digital platforms enhanced transparency: *"We manage the process on Canvas… you can track us more easily and give quicker feedback" (p2)*. In Phase 3, this transparency appeared routinized, embedding openness into daily collaboration.

The emergence of questioning discussions also reflected growing authenticity. In Phase 1, teachers engaged in reciprocal inquiry: *"We don't immediately do what we know. We ask each other for input. We work together collaboratively" (p1)*. Though not repeated later, the consistent use of digital tools suggests that dialogic inquiry became normalized.

Reflections on positive, productive relationships were initially informal: *"We all try to help each other... we plan some things together" (p1)*. While absent in later phases, stronger digital collaboration and team continuity in Phase 3 indicated greater cohesion and confidence.

Finally, a capacity for mutual and consensual understanding developed. In Phase 1, inclusivity was emphasized: *"Everyone should contribute during the planning phase" (p2)*. By Phase 2, shared reflection became a growth mechanism: *"Seeing each other's ideas*

allowed us to develop and improve ourselves" (p4). In Phase 3, this matured into strategic awareness: *"Teacher communication is quite strong… we evaluate our work and talk easily about what to do next year" (p6).*

Dialogue

Table 8 presents the quantitative and qualitative findings related to the dialogue dimension of transformative learning. The results demonstrate how teachers' dialogic engagement and collective meaning-making evolved throughout the study.

Table 8. Quantitative and qualitative results for the theme of dialogue

Subscale scores from pre-test and post-test										
Dependent variable	**Pre-test**		**Post-test**		**n**	**t**	**df**	**p**	**Cohen's d**	**Source of difference**
	M	**SD**	**M**	**SD**						
Dialogue	3.17	0.30	3.48	0.28	68	-12.25	67	.000	1.06	Post > Pre
Code frequencies across interview phases										
Codes								**Pre-interview (f)**	**Post-interview (f)**	**Follow-up interview (f)**
Dialogue with the self and others openly								2	1	0
Provide information and make meaning								2	2	0
Agreement on judgements and new perspectives								2	1	0
Total (f=10)								6	4	0

There was a statistically significant difference between pre-test (M = 3.17, SD = 0.30) and post-test scores (M = 3.48, SD = 0.28) on the dialogue subscale, $t(67) = -12.25$, $p < .001$, with a large effect size (Cohen's d = 1.06). The qualitative analysis revealed three codes: dialogue with the self and others openly, providing information and making meaning, and agreement on judgements and new perspectives. The code providing information and making meaning was the most frequent across all interview phases: pre- (f = 2), post- (f = 2), and follow-up (f = 0). It was followed by dialogue with the self and others openly: pre- (f = 2), post- (f = 1), and follow-up (f = 0); and agreement on judgements and new perspectives: pre- (f = 2), post- (f = 1), and follow-up (f = 0).

The importance of open dialogue with self and others appeared early. In Phase 1, teachers stressed inclusivity: *"Collaborative planning truly requires cooperation, so everyone's ideas must be valued" (p1)*. By Phase 2, exchanges became richer and more frequent: *"The more we gather and talk, the more beneficial it becomes" (p6)*. Although Phase 3 lacked direct quotes, broader reflections suggested dialogue had become routine.

Providing information and constructing meaning also gained intentionality. Initially, teachers described spontaneous idea sharing: *"We come together and generate new ideas. We learn different things" (p1)*. By Phase 2, this process was more structured: *"Each teacher writes their thoughts. When we meet, we talk again" (p1)*, indicating iterative meaning-making through blended interactions.

Dialogic agreement and openness to new perspectives followed a similar trajectory. In Phase 1, a collaborative ethos emerged: *"One needs to bring ideas forward, even if they're not their own... collaboration means helping those in need" (p1)*. By Phase 2, digital mediation reinforced participation: *"Thanks to Canvas, even if we can't meet in person, we can still follow the process" (p1)*. While no new data appeared in Phase 3, the consistent use of platforms indicated consensus-building had become normalized.

Limitations

A limitation of this study relates to the inability to re-administer the CTS in the follow-up phase due to a 35% teacher turnover rate, although the survey was administered at the pre-test and post-test stages. In contrast, qualitative data were collected across all three phases (pre-, post-, and follow-up interviews), enabling longitudinal insight into teachers' learning processes. The observed turnover occurred over the extended period covering the school's candidacy, authorization, and evaluation phases, rather than between immediate data collection points. In fact, teacher mobility is a common feature of private schooling contexts in Türkiye (Demir & Yıldırım, 2017) and thus represents a contextual condition rather than an anomaly in this research. Importantly, this study adopts a longitudinal and collaborative perspective, focusing on the continuity of professional learning within a PLC. Despite turnover, the collaborative culture was sustained through shared practices, structured planning processes, and ongoing reflective dialogue. Therefore, the findings reflect not only individual teacher development but also the continuity and transfer of a transformative professional learning culture over time. While the absence of follow-up survey data limits longitudinal quantitative comparison, the inclusion of multi-phase qualitative data provides a robust basis for interpreting sustained pedagogical transformation.

Discussion and Conclusions

Statistically significant differences between pre- and post-test scores across all subscales indicate that teachers in online-supported collaborative planning experienced growth in their perceptions of transformative learning. Findings suggest that structured, dialogue-rich, digitally supported environments foster transformations in teachers' cognitive, emotional, and pedagogical orientations, consistent with Mezirow's and Taylor's frameworks. The significant increase in post-test scores for *the promoting critical reflection* subscale shows that sustained, dialogue-oriented collaborative planning - particularly when facilitated through digital platforms - cultivated teachers' capacity for critical reflection. This aligns with Mezirow's (2000) dimensions of content, process, and premise reflection. Early reflections, initially fragmented and surface-level, deepened into critical evaluations of pedagogical assumptions and collaborative interactions. Teachers increasingly recognized growth areas and engaged in mutual feedback, signaling reflective agency. Process reflection transitioned from a technical task to a metacognitive practice enabled by digital tools, while premise reflection evolved into a shared understanding of planning as meaning-making and responsive pedagogy. By the follow-up stage, teachers demonstrated greater intentionality and value-based reflection, echoing the transformative power of guided premise reflection (Urzúa & Asención-Delaney, 2023). Overall, content and process reflections became routine and digitally supported, while premise reflection - though transformative - remained fragile, underscoring the need for sustained institutional scaffolding.

Further evidence of transformative learning emerges in the significant increase observed on the *holistic orientation* subscale, indicating teachers' evolving understanding of learning as an interconnected, affective, and collaborative process. The collaborative planning process, embedded in online discussions, significantly enhanced teachers' engagement in this characteristic of transformative learning (Kwakman, 2023). Initially fragmented and constrained by time, structure, and silos, planning became more flexible through platforms such as Canvas and Drive, enabling asynchronous interaction, remote participation, and interdisciplinary exchange. This transformation moved practice from logistical coordination to collective meaning-making, reflecting greater systemic awareness (Papageorgiou et al., 2024). Alongside cognitive development, teachers experienced emotional transformation:

early anxiety and self-doubt gave way to confidence and resilience as digital tools and a supportive culture provided a safe space for experimentation. By the follow-up stage, teachers showed greater emotional maturity and empathy, suggesting holistic orientation as both cognitive and relational (Stolba et al., 2024). Overall, cognitive and emotional dimensions were strengthened, as early fragmentation and anxiety yielded to co-constructed meaning and collective stability.

Moreover, the rise in post-test scores on the *individual experience* subscale highlights how online-supported collaborative planning enhanced teachers' recognition of the transformative role of experience. Early interviews revealed superficial, siloed conversations; however, digital tools later enabled asynchronous sharing and real-time feedback. Through sustained engagement in online discussions, teachers developed a greater awareness of context, fostering collaborative meaning-making and a deeper understanding of their roles within institutional and sociocultural settings. Initially, prior experiences were framed through comparisons or deficit-oriented views, reflecting early resistance to change (Mezirow, 2000). Over time, collaborative dialogue enabled teachers to reinterpret experiences as entry points for re-evaluating assumptions and shaping pedagogy (Stebick et al., 2023). Normative expectations shifted inward as teachers developed self-awareness, empathy, and professional agency (Nawanidbumrung, 2024), while value judgments moved from personal evaluation to communal responsibility and dialogic professionalism (Tan et al., 2012). Reflections on classroom environments further highlighted the embodied and contextual nature of experience. Taken together, findings show how past beliefs, expectations, and realities scaffolded transformation, as teachers moved from resistance and uncertainty to agency, co-construction, and renewal.

In addition, gains on the *awareness of context* subscale demonstrate that collaborative planning - situated within reflective dialogue and digital platforms - expanded teachers' understanding of their roles within institutional and socio-cultural systems. Sustained engagement in online discussions fostered the development of this characteristic of transformative learning among teachers. Initially, many expressed uncertainty about the PYP and perceived planning as fragmented or imposed. Over time, collaborative planning was reframed as a dynamic process for meaning-making and responsive pedagogy (Valéry et al., 2019). Early confusion gave way to clearer integration between planning and inquiry, reflecting systemic thinking and greater efficacy (Constance et al., 2022). Socio-cultural understanding progressed from limited perspective-taking to active negotiation, as teachers recognized interdependence and contextual constraints. While tensions with entrenched norms persisted, teachers increasingly demonstrated adaptation, questioning, and co-construction - markers of professional agency. Overall, contextual awareness evolved from uncertainty and disconnection to integrated, dialogic understanding shaped by collaborative structures and institutional alignment, underscoring its socially constructed nature within professional culture.

Equally important, the increase on the *authentic relationships* subscale suggests that online-supported collaborative planning strengthened teachers' awareness of interpersonal dynamics essential for transformative learning (Cranton, 2006). Participation in online discussions fostered the development of this characteristic of transformative learning. A transition from informal collegiality to trust-based collaboration was observed. Pre-interviews reflected surface-level exchanges, while post-interviews described transparent, co-managed communication through digital platforms, consistent with evidence that online environments foster inclusive dialogue (Leibold & Schwarz, 2022). Questioning discussions, though

initially valued, did not persist, highlighting the need for clearer scaffolding, as critical relationships require vulnerability and support. Similarly, goodwill in early interactions was not sustained, underscoring the importance of leadership in maintaining relational routines (Cranton & Carusetta, 2004). The most visible growth appeared in achieving mutual and consensual understanding: teachers moved from acknowledging diverse views to co-constructing meaning and adapting pedagogy based on peer input, reflecting dialogic mutuality central to transformative learning (Zhang et al., 2025). Overall, authentic relationships evolved from goodwill to structured, trust-based collaboration, with early openness maturing into transparency, shared inquiry, and pedagogical alignment that laid the foundation for sustained collective growth.

Finally, the substantial rise in *dialogue* subscale scores underscores teachers' stronger understanding of dialogue as a core dimension of transformative learning (Cohen et al., 2023; Hennessy et al., 2023). Online discussions enhanced teachers' engagement with this characteristic of transformative learning. Initially treated as idea-sharing, dialogue evolved into a reflective, co-constructive practice embedded in professional culture. Early interviews revealed interactions that were predominantly transactional and lacked dialogic depth; however, digital tools later enabled asynchronous sharing and real-time feedback, shifting interactions toward dialogue-as-learning (Cionea et al., 2020). This shift is particularly significant within the Turkish educational context, where previous research has highlighted challenges in moving from traditional, teacher-centered practices toward inquiry-based and constructivist pedagogies (Aydın et al., 2017; Çakıroğlu & Çakıroğlu, 2018; Uysal & Yavuz, 2015). In this sense, transformation refers not only to changes in instructional strategies but also to deeper shifts in teachers' beliefs, roles, and ways of thinking about learning. Such transformation is often gradual and unfolds over time, requiring sustained participation in collaborative and reflective processes. Studies suggest that teachers' prior experiences and established habits may initially limit dialogic and inquiry-oriented practices, making long-term, structured collaboration essential for supporting this transformation toward constructivist pedagogy. Teachers reported that online exchanges enriched in-person meetings, supporting iterative meaning-making, consistent with Philip et al.'s (2023) view that technology can scaffold transformative dialogue. Over time, teachers moved from passive listening to collaborative consensus, reframing pedagogical choices through collective input. By the follow-up stage, dialogue had become a cultural norm across platforms and teams, reinforcing the link between dialogic orientation, satisfaction, and professional efficacy (Cionea et al., 2020). Overall, dialogue evolved from inclusive exchanges to structured, purposeful engagement that supported reflection, consensus, and pedagogical change, with digital platforms serving as dialogic spaces where transformative learning was enacted collectively.

This study demonstrates that online-supported collaborative planning and reflection significantly enhanced teachers' transformative learning capacities. The findings show that teachers moved beyond describing what they do toward questioning why and how they do it, thereby developing deeper pedagogical awareness and professional agency. Individual experiences, once a source of resistance and anxiety, gradually became a productive resource for growth, fostering self-efficacy, confidence, and a sense of collective responsibility. Moreover, the accessibility and transparency enabled by digital platforms strengthened collaboration and dialogue, allowing authentic, trust-based relationships to take root among teachers. These developments not only supported individual teacher learning but also contributed to the school's cultural transformation and reinforced its institutional sustainability, ultimately culminating in its authorization as an IB World School.

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Ethics Statements: This research was approved by the Ethics Commission of the researcher's institution (Approval Date: 27.08.2017; Decision No: 2017_08_14_03). This study is based on the first author's doctoral thesis, supervised by the second author.
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References

Argyris, C., & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.

Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education, 27*(1), 10–20. https://doi.org/10.1016/j.tate.2010.08.007

Aydın, S., Demir, A., & Yavuz, A. (2017). Teachers' beliefs and practices in student-centered learning environments in Turkey. *Educational Sciences: Theory & Practice, 17*(1), 1–25. https://doi.org/10.12738/estp.2017.1.0166

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.

Cionea, I. A., Hoelscher, C. S., & Rahmani, D. (2020). Dialogue orientations: An empirical test of measurement, dimensionality, and links to communication outcomes. *Communication Monographs, 87*(4), 448-472. https://doi.org/10.1080/03637751.2020.1766098

Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). London: Routledge. https://doi.org/10.4324/9780203029053

Cohen, J., Mevorach, M., & Ricon, I. (2023). Teachers as designers of dialogic learning environments. *Teaching and Teacher Education, 125*, 104016. https://doi.org/10.1016/j.tate.2023.104016

Colvin, J. A. (2014). *Development and determination of reliability and validity of Professional Learning Community Collaborative Team Survey (CTS)* [Unpublished doctoral dissertation]. University of Missouri–Columbia.

Constance, A., Danaher, P. A., & Cook, J. (2022). Teacher agency and contextual awareness in learning communities. *Asia-Pacific Journal of Teacher Education, 50*(4), 361-378. https://doi.org/10.1080/1359866X.2021.1930536

Cranton, P., & Carusetta, E. (2004). Perspectives on authenticity in teaching. *Adult Education Quarterly, 55*(1), 5-22. https://doi.org/10.1177/0741713604268894

Cranton, P. (2006). *Understanding and promoting transformative learning: A guide for educators of adults (2nd ed.)*. San Francisco, CA: Jossey-Bass.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research (2nd ed.)*. Thousand Oaks, CA: Sage.

Çakıroğlu, E., & Çakıroğlu, J. (2018). Teachers' pedagogical beliefs and classroom practices in Turkey. *Teaching and Teacher Education, 74*, 76–87. https://doi.org/10.1016/j.tate.2018.04.017

Demir, K., & Yıldırım, A. (2017). Teachers' perspectives on constructivist practices in Turkey. *International Journal of Curriculum and Instructional Studies, 7*(14), 1-16.
Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: D.C. Heath.
Dewey, J. (1938). *Experience and education*. New York: Macmillan.
Dirkx, J. M. (1998). Transformative learning theory in the practice of adult education: An overview. *PAACE Journal of Lifelong Learning, 7*, 1-14.
DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: Solution Tree.
Eschenbacher, S., & Fleming, T. (2020). Transformative dimensions of lifelong learning: Mezirow, Rorty and COVID-19. *International Review of Education, 66*(5-6), 657-672. https://doi.org/10.1007/s11159-020-09874-0
Field, A. (2005). *Discovering statistics using SPSS (2nd ed.)*. Thousand Oaks, CA: Sage.
Fleming, T. (2022). Transformative learning and identity. *Adult Education Quarterly, 72*(1), 3–20. https://doi.org/10.1177/0741713620918510
Fullan, M. (2001). *The new meaning of educational change (3rd ed.)*. New York: Teachers College Press. https://doi.org/10.4324/9780203986561
Glaze-Crampes, J. (2020). Building professional learning communities in schools: A socio-cultural perspective. *Educational Management Administration & Leadership, 48*(5), 793-810. https://doi.org/10.1177/1741143219896065
Hennessy, S., Mercer, N., & Warwick, P. (2023). A dialogic pedagogy for inclusive and equitable education. Learning, *Culture and Social Interaction, 39*, 100709. https://doi.org/10.1016/j.lcsi.2023.100709
Hoggan, C. (2016). Transformative learning as a metatheory: Definition, criteria, and typology. *Adult Education Quarterly, 66*(1), 57–75. https://doi.org/10.1177/0741713615611216
International Baccalaureate Organization (IBO). (2018a). *From Principles into practice: Learning and teaching*. Geneva: IBO.
International Baccalaureate Organization (IBO). (2018b). *From Principles into practice: The Learner*. Geneva: IBO.
International Baccalaureate Organization (IBO). (2018c). *From Principles into practice: The Learning community*. Geneva: IBO.
International Baccalaureate Organization (IBO). (2024). Programme standards and practices. Geneva: IBO.
International Baccalaureate Organization (IBO). (2025a). *IB programme statistics*. Retrieved from https://www.ibo.org
International Baccalaureate Organization (IBO). (2025b). *IB World Schools in Turkey*. Retrieved from https://www.ibo.org
Khairallah, S. (2015). Collaborative planning in IB schools: Teachers' challenges and perspectives. *Journal of International Education Research, 11*(3), 209-220.
Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education, 19*(2), 149–170. https://doi.org/10.1016/S0742-051X(02)00101-4
Leibold, N., & Schwarz, L. (2022). Student Perceptions of Teacher Online Feedback: An Integrative Review. *Journal of Effective Teaching in Higher Education, 5*(2), 22-42. https://doi.org/10.36021/jethe.v5i2.302
Louis, K. S., Kruse, S., & Bryk, A. S. (1995*). Professionalism and community: Perspectives on reforming urban schools*. Newbury Park, CA: Corwin.
Mei, T., Brown, L., & Reynolds, R. (2022). Teacher identity and transformative learning. *Teaching Education, 33*(2), 178-194.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.
Mertens, D. M. (2009). *Transformative research and evaluation*. New York: Guilford Press.
Murdoch, K. (2015). *The power of inquiry*. Melbourne: Seastar Education.
Nawanidbumrung, P. (2024). Teachers' normative expectations in collaborative learning. *International Journal of Educational Research, 122*, 102203.
O'Sullivan, E. (1999). *Transformative learning: Educational vision for the 21st century*. London: Zed Books.
O'Sullivan, E. (2012). Deep transformation and sustainability. *Journal of Transformative Education, 10*(1), 11-30.
Papageorgiou, K., Georgiou, Y., & Ioannou, A. (2024). Digital collaboration for teacher learning: A systematic review. *Computers & Education, 205*, 104836.
Philip, T. M., Olmanson, J., & Morrell, E. (2023). Pedagogical dialogue in digital environments. *Harvard Educational Review, 93*(2), 153-176.
Saa'd AlDin, A. (2014). *Collaborative planning in IB schools: A comparative case study of PYP and MYP teachers in the UAE* [Master's thesis, The British University in Dubai]. British University in Dubai Repository. https://bspace.buid.ac.ae/handle/1234/667
Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
Stebick, D. M., McKee, R., & Miller, C. (2023). Prior experience as a resource in professional learning. *Journal of Teacher Development, 27*(4), 422-439.
Stolba, F., Krammer, M., & Seidel, T. (2024). Emotional resilience in teacher collaboration. *Teaching and Teacher Education, 130*, 104182. https://doi.org/10.1016/j.tate.2023.104182
Sujarwanto, S., Wardhani, N. W. S., & Hidayah, N. (2022). Transformative learning in teacher professional development. *Journal of Education and Practice, 13*(8), 45-56.
Tan, C., Loughran, J., & Dixon, M. (2012). Value judgments in teacher professional learning. *Asia-Pacific Journal of Teacher Education, 40*(2), 115-128.
Taylor, E. W. (2000). Analyzing research on transformative learning theory. In J. Mezirow (Ed.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 285-328). San Francisco, CA: Jossey-Bass.
Taylor, E. W. (2008). Transformative learning theory. *New Directions for Adult and Continuing Education, 2008*(119), 5-15. https://doi.org/10.1002/ace.301
Taylor, E. W. (2015). Transformative learning theory. In M. A. Peters (Ed.), *Encyclopedia of educational philosophy and theory* (pp. 1-6). Singapore: Springer.
Taylor, E. W. (2023). Transformative learning revisited: Theory and practice. *International Journal of Lifelong Education, 42*(3), 295-309.
Turan, S. (2021). *Change and transformation in education: Instructional leadership,* Ankara: Pegem Academy.
Urzúa, A., & Asención-Delaney, Y. (2023). Premise reflection and language teacher identity. *Language Teaching Research, 27*(3), 373-391.
Uysal, H., & Yavuz, A. (2015). Transition to constructivist teaching in Turkish classrooms. *Educational Research and Reviews, 10*(5), 567–575.
Uzum, B., Petron, M., & Berg, H. (2014). Reflection-in-action, reflection-on-action, reflection-for-action: A multiple case study. *Reflective Practice, 15*(3), 362-379.

Valéry, G., O'Connor, K., & Parker, M. (2019). Contextual awareness in professional learning. *Journal of Education for Teaching, 45*(4), 378-392.

Van Manen, M. (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness*. Albany, NY: SUNY Press.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24*(1), 80–91. https://doi.org/10.1016/j.tate.2007.01.004

Wilson, A. L. (2008). The social construction of reflective practice in teacher education. *Teachers and Teaching, 14*(4), 355-368.

Zhang, X., Li, Y., & Chan, C. (2025). Building authentic professional relationships in teacher learning communities. *Teaching and Teacher Education,* 137, 104368