From noticing challenges to adaptive actions: fostering transitive reflexivity of pre-service GFL teachers through service-learning counseling practices

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This study investigates how 14 pre-service teachers of German as a foreign language engage in collaborative reflection within team meetings following independent counseling and reflection phases—in a service-learning context and over the course of one semester. Four audio-recorded group reflections are analyzed qualitatively with a focus on two aspects: perceived challenges and self-perceived adaptive practices. The analysis provides a macro-level insight into the collective reflection space for multidimensional concepts, and further reveals the micro-reflexive dynamics in a case study. Adopting a short-term longitudinal perspective, the study further examines how these reflections change across a semester-long advisory cycle. The participants' perceptions of problems and their self-perceived adaptations are analyzed within the framework of transitive reflection, uncovering a dynamic interplay between different aspects and shifts toward more process-oriented, multidimensional adaptive and co-adaptive orientations. Transitive reflexivity is approached across three interrelated dimensions: novices' transitions from problem noticing to adaptive actions; domain-specific reflexive shifts over time (transition in problem perception and adaptivity), and the emergence of a transitive orientation that links process understanding with adaptive, discursive, and learning-related dimensions. The study advances the conceptual framework of transitive reflexivity and substantiates its relevance for ongoing and future empirical inquiry in teacher education. The study underscores advisory settings as fertile contexts for cultivating transitional and adaptive professional self-understanding and reflexivity, while acknowledging the interrelation of multidimensional transitive processes in reflection and interaction, in different phases and types of action cycles, as a promising direction for future research.

KEYWORDS

service-learning, teacher education, adaptive and transitive reflection, reflective practice, counseling experience, pre-service teacher

1 Introduction

Service-learning contexts offer prospective teachers distinctive opportunities for professional growth through iterative cycles of analysis, action, and reflection, engaging them in authentic educational tasks characterized by situational novelty and diversity. Within these cycles, both the dynamics of learning and the novice's evolving agency, adaptability, and

transitive orientation come to the fore as they engage in specific roles, practices, and domains of competence. Tensions arising from collisions in expectations, interpretive frameworks, and action orientations function as productive irritations, prompting adaptation and self-improvement. Developing reflexive competence in these areas, with a particular focus on self-perceived adaptive processes, is essential for the formation of professional identity, as it enhances novices' self-concept, self-regulation, and self-efficacy, and facilitates the internalization of co-adaptivity as a core guiding principle that promotes innovation and experience-based learning. Transitive reflexivity plays an important role in this process by facilitating a "shift from trial-and-error learning to deeper reflection" (Dewey, 2011), thereby focusing on process-adaptation and transitional dimensions of experience. It highlights its multidimensional, co-constructive, and dynamic nature and the ability to navigate in-between spaces, adjust actions within evolving contexts and to be flexible in the multidimensional process of adaptation. Rather than implying profound *transformative learning* (Mezirow, 1991), it foregrounds situated adaptive micro-learning and the relational alignment of subjective concepts with objective actions, fostering creativity, ongoing self-regulation and continuous professional development.

Transitive reflexivity refers to a dynamic mode of reflexive engagement that foregrounds a particular mode of thinking within reflection. It is grounded in an understanding of professional action as a co-constructed and transitional learning process that unfolds dynamically through multidimensional adaptation, involving transitions for both educators and learners. This presupposes a co-constructive understanding of learning in which the educator's own transitive movements are dynamically interlinked with those of the learner, aligning to the evolving learning, interactive and dynamics of mutual adaptation, thereby fostering reciprocal attunement. It conceptualizes reflection not as a static, fragmented or evaluative analysis of past actions but as a reflection-in-action, process- and forward-oriented, thereby interconnecting (cf. EDAMA model of reflection by Aeppli and Lötscher, 2016) situated perception, analysis, and focuses on change, variation and adaptive transformation of practices, within interconnected actional flows. It involves recognizing adaptivity as a key for situated learning process, enabling educators to respond to situational contingencies, co-construct new forms of professional actions as responsive actions. Initially suspending critical examination and evaluation, this form of reflexivity focuses on understanding the movement from one cognitive concept, interactive practice, learning moment, or approach (A) to another (B) as a reflexive movement A-to-B, where B denotes a perceived new state, based on adaptive actions. It supports the self-understanding of dynamic flows of adaptive transitioning, regarding what has changed in the process transitioning and which levels are involved in the multidimensional transitional space. Transitive reflexivity unfolds across multiple phases: beginning with the perception of context and emerging challenges in the flow of action, proceeding through processes of analysis to adaptation, whether by drawing on established professional repertoires, their variation or accommodation, or the creative generation of new practices within co-constructed contexts. In a subsequent step, reflective engagement extends toward intentional, forward-oriented self- and co-regulation within ongoing, multidimensional, and temporally interconnected processes, with the post-action reflection shaping subsequent transitions. This supports a dynamic understanding of professional action as a multidimensionally

adaptive, co-constructed, process-oriented, transitive and context-sensitive practice, enabling to monitor, regulate, and guide co-adaptive trajectories.

Transitive reflexivity presupposes an epistemic openness toward situational learning processes, constructive engagement with challenges, disruptions and irritations, understanding such moments as productive irritants that serve as valuable resources for professional growth and as catalysts for adaptive and innovative action, involving continuous monitoring and a constructive orientation grounded in deep perceptive awareness. It further involves adopting an analytical stance, in a process-oriented reflection-in-action modus and embracing multiperspectivity, systematically reflecting on multidimensional factors, resources and developmental potentials. The problem analysis structures the mental landscape as a preparation for developing adaptive solutions in the next step. This includes further the orchestration of different trajectories of adaptive action and flexible regulation of these dynamics. The process is multifocal and multidimensional, involving for example transitioning regarding role management, interactional practices, or specific learning process dimensions. Transitive reflexivity refers thereby to an actional cycle that can unfold both on a macro level or across smaller, interlinked action units at the micro level, operating on different granularity scales, but most importantly it connects these different levels of reflection and action. Given its inherent complexity, the process requires deliberate steering of transitional reflection and the nuanced understanding of how multiple adaptive processes are interrelated. In fostering the development of transitional reflexivity, attention should be given to its gradual expansion through increasing multidimensionality, shifting perspectives on different positions within the process and action cycles—while integrating interconnections across different transitional processes.

With the aim of investigating transitive reflexivity in the novice context with high demands on adaptivity in action, the present study focuses on pre-service teacher operating in entirely new contexts who, when confronted with challenging situations, tend to become highly problem- instead of solution-oriented, which often makes overcoming difficulties more demanding. As similarly proposed in the EDAMA model (Aeppli and Lötscher, 2016, p. 92), where the depth, breadth, and regulation of reflexive engagement can be shaped through the deliberate selection of specific categories, goals, phases, and cognitive activities, a targeted selection of two reflexive phases and foci is applied here to minimize the reflexive load for novices and to channel reflection productively into the process. The reflective processes examined here are therefore situated at the beginning and the end of the transitive reflection cycle within an actional trajectory, providing orientation points for novices. Focusing firstly on their perception of problems is particularly insightful, as it serves as a starting point for more complex reflective processes. The analysis further focuses on reflection on adaptive processes, using this as positive mental anchors that guide and regulate reasoning and promote resource-oriented, action-focused transitions toward new solutions. The analysis-focused phase in reflection is temporarily excluded, as challenging in the novice context and requiring gradual refinement through scaffolding, an approach that could disrupt the natural dynamics of adaptivity and its understanding, which is the focus of this study. To examine specific transitional-reflective dynamics in early practical contexts in service learning context, the study focuses on this reflection transitional move from self-perceived challenges within newly encountered action

spaces to self-regulative adaptive practices, thereby placing particular emphasis on interactive adaptivity, a core dimension intrinsic to the advisory context analyzed here, where interaction functions as the key medium for fostering developmental processes.

The study is situated in the context of foreign language learning (FLL) counseling for German as a foreign and second language (GFL), where pre-service teachers (PTs) advise international students for the first time over the course of a semester, a unique, new and complex educational task for both participant groups. In this setting, PTs engage in double-layered reflexivity, simultaneously supporting learners in developing self-regulative adaptive mindset while experiencing parallel reflective and transitional processes themselves, interlinking the learners' developmental and their own adaptive trajectories. Another distinctive feature of the study lies in its integration within a service-learning with data collection through group reflections conducted during team meetings, accompany participants' independent counseling activities and individual reflection practices. The audio-recorded data are analyzed from a content-oriented perspective to identify specific concepts shaping professional growth in a counseling settings, complemented by a case analysis that examines reflexive micro-dynamics in greater detail.

The analysis further examines how the two dimensions of reflection, focused on the transitive reflexive C(*challenge*)-to-A(*adaptation*)-movement, evolve over time within the counseling cycle, spanning seven counseling sessions. The analysis encompasses the full advisory trajectory, comparing reflections at the beginning and end of a four-month advisory period (one semester). This macro-level perspective helps moderate the reflective load for novices, who may experience cognitive and emotional strain during intensive reflection. It further becomes particularly revealing to trace these trajectories at this points, given that the onset of the counseling process represents the most unstable phase, characterized by a dispersed adaptive orientation that requires consolidation, regulation and more focused steering, and its conclusion marks the stabilization of adaptive orientation while projecting subsequent transitive orientations. Focusing on the beginning and end phases serves to reveal how actional–transitive orientation is organized within a complete cycle, allowing reflection processes to be guided macroscopically at first—toward identifying overarching transitional tendencies or adaptive orientations—before more differentiated transitive dynamics tied to specific foci, dimensions, or actional contexts are examined, concentrating on the finer, albeit equally intriguing, micro-dynamics within smaller advisory practices. Observing changes across this trajectory enables the identification of developmental trends in transitive reflexivity that can be more reliably captured at the macro level, where reflection dynamics are structured by prevailing transitive orientations, rather than within unstable or rapidly shifting micro-actional processes, shaped by dynamic interactional alignments. Intermediate reflections are likewise captured but explored in greater depth only when they exhibit significant changes in the underlying reflective orientation. The interrelation of different transitive processes within smaller actional flows during the counseling cycle, and how collective reflections shape broader adaptive orientations as well as the interfaces between individual and collective reflections, represent a research desideratum that warrants further systematic investigation.

Emerging authentically from the data, reflective foci form two analytical strands are organized in the section on perceived problems and challenges, in general, within distinct thematic domains and in

the case analysis (Section 4), and in on interactional adaptivity (Section 5). Prior to presenting the findings, the study outlines its methodological and contextual framing (Section 3) and provides theoretical insights into the formation of emerging teacher selves (Section 2.1), the advisory context, emphasizing its relevance for the promotion of transitional reflexivity (Section 2.2), as well as the specific affordances of the service-learning environment its contribution to understanding professional formation (Section 2.3).

2 Literature review

2.1 Navigating adaptive and transitive processes and emerging teacher selves

The emergence of teacher professional identity is conceptualized as a transitional process of developing professional knowledge and competencies within contextually embedded practices, ultimately leading to *transportable identities* (Li, 2022). As a dynamic, multidimensional, and context-dependent construct shaped through interaction, expressed variably across situations in a multidimensional self-regulative processes, the emerging self involves transitional identities as fluid, temporary constructs "in between," merging different developmental trajectories and transitive processes. It encompasses multiple situated identities, emerging through the co-construction of discourses, shaping situated selves through co-adaptive actions. This process necessitates the continuous coherent integration of multiple identity positions and interactive roles into a coherent self that ensures both stability across discursive transitions and openness to transformation, while enabling the deliberate self-regulation when adapting to new contexts, roles and tasks. Cohesive capacity arises from the monitoring and regulation of self-transformative, adaptive actions that are bound to authentic interactional and developmental dynamics. Fostering competencies for navigating this inner transitions includes beyond self-monitoring and self-regulation (cf. Arrastia-Chisholm et al., 2018), the constructive recognition of the challenges and their transformation them into learning opportunities, cultivating a process-oriented, adaptive and action-research mindset, in order to guide these processes in innovative and productive ways, effectively steering the transitions toward enhanced professional agency and self-regulated development. Such processes can be constructively navigated through the lens of transitional reflexivity, which provides a unifying framework for explaining how micro-adaptive actions, transformational learning *in situ* and overall professional self-development and self-coherence are dynamically maintained and developed across contexts and over time. The self-competence for managing such transitions provides a framework that enables the constructive engagement to meet changing conditions (cf. Fairbanks et al., 2009), thereby fostering a dynamic continuity of professional identity across different dynamically evolving contexts. While a certain degree of reflexive self-distance is essential (cf. Jehle and McLean, 2020), an excessive degree can risk fragmenting the emerging teacher identity. When understood as transitive reflection, however, this self-distancing assumes a dynamic but integrative role, without fragmenting problematic experiences or framing them as deficits, but rather facilitating their incorporation into a coherent trajectory of self-development. In this way, transitive reflection preserves continuity

across experiential transitions, enabling novices to transform reflexive self-distance into a resource for adaptive self-regulation.

Transitional reflection supports self-navigating emerging selves by fostering a resource-oriented understanding of contexts, in which learning, conceptualized as adaptive transformation, involves a shift from deficit-orientation and the use of challenges as productive trigger to develop solution-oriented adaptive actions. In this context, some differences between in-service teachers and novices, in how they construct their learning orientations in challenging situations, have been evidenced by Esslinger-Hinz and Denner (2019), particularly concerning goal orientation, the learning outcomes, the use of these situations as opportunities for deep elaboration and problem-reasoning. Furthermore, as noted by Weber et al. (2020), differences can be observed in the granularity of perception of problems, particularly regarding the interplay between holistic and selectively focusing processes, procedural structuring, and prognostic competence in anticipating potential courses of action. These differences also extend to the regulation of the automatic emotional and evaluative interpretations of situations. Stability in responding to challenging impulses, together with ambiguity tolerance and emotional self-regulation (Aldrup et al., 2023; Muehlbacher et al., 2022; LaPalme et al., 2022; Salimzadeh et al., 2021), emerges as a decisive factor in fostering an adaptive orientation. This also applies to the regulation of performance-limiting effects of reflective processes and especially when practical experience and subjective theory are brought into collision, as well as in relation to self-efficacy for reflection (Hußner et al., 2023), all of which can be harmonized through the introduction of the concept of transitive reflexivity in initial phases of teacher education.

As noted by Trempler and Hartmann (2020), further problems for novices arise when interpreting and aligning experiential impulses with theoretical knowledge, or anticipating potential future effects, as well as when identifying reflection trigger or developing reflection focus from different perceptions. For novices, managing these loads is crucial, particularly as reflective triggers arise from situational perceptions and experiences that do not necessarily relate to actual problems but are projected or constructed on the basis of perceptual filter or overloads, unreflected prior experiences, expectations or theoretical assumptions. Deciding which experiental trigger is salient, grounds problem construction, initiates adaptive actions or regarding linking multiple triggers in the initial phase of transitive reflexivity, warrants closer analytical attention, as it involves the concurrent perception of multiple dimensions and their complex interrelations, which shape the focus, attention direction, and activation of transitional reflexive movement. In this sense, the emergence of reflexive triggers is not a linear reaction to discrete events and real problems but a dynamically co-constructed, contextually embedded process shaped by the interdependencies within the learner's experiential field. It functions as a regulatory mechanism guiding adaptive action, and in a broader sense the professional development in the connecting experiences and action cycles. Since subjective theories may exert both constraining and enabling influences, learning to engage reflexively and adaptively with challenging experiential perspectives within transitional reflexivity can lead to positive outcomes for actional flexibility through a greater integration of reflection-in-action into the ongoing flow of practice. By addressing this gap, the present study investigates how novices construct their general problem perception, differentiate among multiple problem

domains, and how their interplay influence adaptive action and transitive reflexive movement—thus determining the direction of professional development processes.

Since transitive reflexivity emphasizes the development of alternative courses of action, the key reflective domain concerns fostering the self-perception of multidimensional adaptive actions and their elaboration. As novices often struggle to recognize and utilize contexts as resources, "lacking a transformational vision" (Liyuan et al., 2024, p. 31), this can be supported through training in transitional reflection, which focuses on co-adaptive actions that couples one's own actions with those of other co-participants. It supports integrating multidimensional adaptivity processes, thereby regulating multiple domains of action and moving beyond evaluating, critical reasoning and problematizing toward solution-oriented engagement. Instead of standardizing actions, the emphasis is on creative processes that foster problem and contextual analysis, multidimensional reflection loops, and authentic contextual reasoning, rather than cognitively and emotionally demanding forms of analysis that often pose difficulties for novices. As noted by Jehle and McLean (2020), reflection in novice contexts should strengthen resource-orientation and possibilities emerging from their own reflective engagement and professional sense-making, framing this as adaptive and not self-corrective process, as self-regulative and not external or prescriptive directed courses of action, thereby opening interpretive horizons, enabling inductively generating experiential knowledge and grounding in professional knowledge as well as the gradual emergence of professional agency. Through reframing challenging experiences into adaptive actions and manageable tasks is essential for fostering stable self-expectations, emotional regulation and self-efficacy, as teacher agentive self-perceptions—according to Hußner et al. (2023)—should promote confidence and persistence while maintaining enough uncertainty and dissonance to encourage developmental processes. Strengthening self-efficacy beliefs through focusing on adaptivity can support motivational orientations, self-confidence and self-perception of one's own teaching capacity and overcoming self-criticism as well as other process-related competencies (Kücholl et al., 2020), but first of all strength innovation and creativity. This sustains an equilibrium between challenge and agency, routine and innovation, one's own and the co-participants' adaptive development.

As highly context-dependent, professional agency is understood as dynamic transformative and transitive action to actively co-construct learning environments in which learners are seen as crucial resources (cf. Liyuan et al., 2024), necessitating calibration of actions in alignment with learners, developing sensitivity to learners' procedural perspectives and learning dynamics, drawing on their resources, and engaging in responsive, learner-centered follow-up actions. Agency is particularly strengthened through reflexive engagement in a process-oriented manner, that remains open and exploratory toward diverse, multidimensional courses of adaptively changing action. This requires adaptive process-orientation, the monitoring both of learning and interactional dynamics, and the ability to relate different levels of adaptive action across both macro- and micro-dimensions, and most importantly to focus on co-adaptivity as a means of aligning one's adaptations with those of co-participants. Transitive reflection supports this, by fostering adaptivity not merely as localized, one-dimensional, context-specific adjustment, but also as the capacity to connect different levels of action—macro, meso, and micro—through adaptive orientation and

within overarching developmental mechanisms that guide professional growth via solution-oriented reasoning and multiple adaptive alignments across diverse situational dynamics. This perspective further adds a dynamic, temporal and developmental dimension, framing agency as an adaptive, ongoing, open-ended process that continuously demands the systematic integration of multiple levels, dimensions, and foci within evolving contexts of professional action, supporting self-regulation.

2.2 Enhancing reflexive competences of pre-service teachers through advisory experiences

As a mediating and reflective dialogue, FLL advising serves to support ongoing learning processes and to reduce resistance within the learning system, thereby diversifying learning strategies, connecting diverse dimensions and fostering self-regulation (cf. Kato and Mynard, 2016). At its core, it seeks to uncover and activate learning resources, to initiate diverse developmental processes, and to accompany shifts in attitudes and behaviors while supporting self-regulation, or initiating *transformative learning processes* (Mezirow, 1991). This format is especially conducive for novices, as it allows them to focus on individual learning processes, their transformative aspects and thereby support multidimensional developmental dynamics, promoting transitional reflection for both learner and advisor. These experiences foster novices' co-adaptive orientation, which is cyclically reflected upon, modified and further refined, in the sense of an action research-oriented learning. Beyond diagnostic expertise with consultancy-specific attitudes and interactional competences, as well as integrative application of different theoretical insights (cf. Drechsel et al., 2020; Lehker and Saunders, 2022), essential competence domains developed in the advisory process include empathic perspective-taking, solution- and resource-oriented practices and the facilitation of reflective processes that adaptively follow learners' developmental dynamics. The navigation of transitional challenges in a process-oriented and adaptive manner involves balancing directive and non-directive interventions, addressing resistances, and facilitating multidimensional developmental processes, including engagement in inner dialogue, as well as tensions between responsiveness to learners' individual needs and alignments with advisory goals.

Although the advisory process generally follows a structured progression (cf. Pick, 2017; Kleppin and Spänkuch, 2014a, 2014b)—ranging from the identification of learning needs and the analysis of learning processes and current challenges, through an exploratory phase and the co-constructive redefinition of the problem domain to advisory focus, to problem analysis involving mental restructuring and transformative interventions, followed by the development of new approaches and practices to expand the range of possible solutions, as well as the formulation, implementation, and evaluation of concrete actions—this process rarely unfolds in a linear manner. Rather, due to the multifocality and multidimensionality of interventions, as well as the antinomies of professional action, it often appears inconsistent and dynamic, requiring transitive, process-oriented reflection and strategically focused process steering. Due to the complexity and challenges related to interconnection of different advisory tasks, particularly when the process develops longitudinally, it also demands

the inclusion of a macro-perspective in conjunction with transitive micro-reflective activities. This stimulates multiple dimensions and layers of adaptivity across macro-, meso-, and micro-actional movements within a transitively and process-flow-oriented reflexivity. Furthermore, advisors engage in a form of double-layered reflexivity as they simultaneously support learners in developing a self-regulative mindset while undergoing parallel reflective processes themselves—moving through phases of challenge identification, problem analysis, and the development of adaptive solutions. The dynamic processes support the *self-transformative reflexivity* (Mezirow, 1991; Lazovic, 2022), as the ability to monitor and reflect upon the dynamics of multidimensional adaptive and self-regulative activities and their functional development, as a key for sustainable professional development. Since progress- and process-oriented reflection on the advisory functional adaptive changes following learning transitions shapes self-transformative reflexivity, it places greater emphasis on the transitive reflexivity, extending the *reflection-in-action* with reflection on mutual co-adaptation, thereby integrating self- and learner-transformative processes. This refers both to transitioning in locally situated processes as well as to their interconnections at the meso- and, in longitudinal advisory contexts, at the macro-level—where the coherent alignment of different interventions, action contexts, and adaptive processes relates to the negotiated, expected and anticipated dimensions of process progression.

As a multidimensional construct, transitive reflexivity can be here situated, among other aspects, in relation to interactive adaptivity related specifically to the adjustment of interactional practices to support learning dynamics, the development of intersubjective practices, and process facilitation, requiring specific approaches aligned with learners' developmental trajectories. This presupposes a process-oriented reflection on situated learning and in interactional transitions, requiring continuous adaptation to varying dynamics (cf. Stahnke and Blömeke, 2022), the navigation of its multidimensionality, and developmental transitions inherent in learning processes as well as on self-regulative interactive adaptability. One of the central reflexive domains involves interactive responsivity—understood as the ability to move beyond self-centeredness and develop empathic cognitions and perspective-taking strategies (Lazovic, 2025a, 2026a, 2026b), while anchoring contextually appropriate solutions within the learning system. As García et al. (2010) demonstrate, responsivity encompass further aspects of adaptively building on learners' prior knowledge, understanding how they construct meaning, affirming their perspectives, and acknowledging the interconnections between language, culture, and identity. It further includes developing and flexibly managing different roles, balancing interactive distance and reflection on interactional expectations and intersubjectivity, especially salient in the early stages of teacher development. Another important domain for reflective development of novices, as shown by Dopheide (2020), concerns the ability to deal with professional antinomies, enduring perceived contradictions in actions, and self- and other perceptions while maintaining the capacity for goal-oriented adaptive action in a self-motivating way. This supports tolerance for ambiguity, expanding professional-practical knowledge through challenging experiential impulses, and transforms deficit-oriented mindsets into stable adaptive and resource-orientation.

While several interaction-analytic case-studies have examined adaptivity and functionally oriented transitions in the use of certain practices in FLL advisory context (Lazovic, 2025a, 2025b, 2026a,

2026b)—such as simulated self-talk, self-disclosure, feedback, or the deployment of specific linguistic resources like tag questions—, there are, to date, no studies that investigate reflection practices addressing interactive adaptivity in terms of transitive reflexivity of the novices. This gap becomes especially significant when considered from a longitudinal perspective, in the early professionalization, and related to the specific reflective modality, as this study aims to addresses by examining these phenomena within the context of service-learning-based FLL advisory interactions, exploring how transitive reflexivity unfolds in novice advisors' reflexive engagement in collaborative setting in team meetings. It will be particularly interesting to understand on which levels novices reflexively locate their interactive adaptivity and whether this interactional self-awareness—similar to findings from developmental- and adaptivity-oriented interactional studies in professional contexts as well as on the co-construction of interactional practices (Nguyen, 2008, 2011, 2012; Nguyen and Malabarba, 2025; Pekarek Doehler and Pochon-Berger, 2011, 2019; Pekarek Doehler and Balaman, 2021; Skogmyr Marian, 2023; Deppermann, 2018; Deppermann and Schmidt, 2021)—relates to intersubjectivity work, joint activities, recipient design, epistemic self-positioning, or at the level of routinization, diversification, or specialization of resources for specific action purposes, as well as to cooperative reasoning, flexible handling of situational contingencies, and the functionalization of certain practices during advisory interactions—either in an argumentative sense or as anchoring devices for particular interactional sequences. Another important dimension concerns whether and how these aspects evolve within the actional framework of an advisory cycle—from its beginning to its end—especially regarding conceptual shifts in problem perception and reflections related to adaptivity, in order to capture short-term professionalization effects of the service-learning modality and to indicate some developmental trends in emerging reflective competence. It will also be important to see whether novices locate these adaptive activities within the scope of transitive reflexivity and relate them to the perception of change as co-adaptation—as a mutual transitioning process in which both interactants continuously engage in reciprocal transformation. Before exploring this in detail, the next chapter considers the specific characteristics of the service-learning context in relation to fostering reflexivity.

2.3 Service-learning in foreign language teacher professional development

Service-learning (SL) context examined here is a reciprocal learning approach that engages students in meaningful community service to address real-world social needs, while simultaneously fostering experiential, problem-based, project-oriented, and active learning through hands-on, learning-by-doing process (cf. Clanton Harpine, 2024; Macknish, 2023; Backhaus-Maul and Jahr, 2021). Prospective teachers perceive different facets of their professional role, but most importantly see themselves as "change agents, as they recognize the importance of their educational work in influencing lives and processes" (Toronyi, 2020, p. 11). The real-life experiences and observing change in action form the basis for multidimensional reflection activities, with "learning occurring primarily through the reflective processing of problem-solving experiences" (Wirtherle, 2019, p. 170). Since SL integrates different forms of individual, group

and mentored reflection (cf. Anderka et al., 2023) and various modalities of pre-/post-/in-action-reflections (Macknish, 2023, p. 45), it activates multiple levels and dimensions of reflection, deepened through new experiential prompts in new actional cycles and joint discussions (cf. Derkau and Gerholz, 2023), leading to a more refined, adaptive and responsive practice. This process shares similarities with research-based learning, as contexts are explored, analyzed, activities are systematically planned and implemented, and subsequently evaluated. This allows for deep and explorative learning experiences (Archiopoli and Murray, 2019), enabling the integration of different domains of knowledge.

Numerous benefits have been identified throughout the process of SL (cf. Reinders, 2016; Wirtherle, 2019; Macknish, 2023; Clanton Harpine, 2024), ranging from cognitive gains (such as a deeper understanding of theories, the development of higher-order reasoning), to social-interactive (including social responsibility, cooperation, intercultural understanding, diversity and communication skills, interactional linguistic awareness), motivational (such as increased intrinsic motivation), and metacognitive gains for problem-solving, analytical reasoning, critical thinking, and most importantly routinizing, diversifying and deepening reflective practices. Most importantly SL contexts foster novices' capacity to empathetically attune to diverse learner perspectives and adjust their situational awareness and repertoires of practices accordingly. Experiencing self-efficacy and agency through adaptive engagement in the follow-up actions, is at the core of the learning process in SL (cf. Wirtherle, 2019). Beyond developing coping skills (Toronyi, 2020), creativity and goal orientation (Reinders, 2016), SL contributes, according to Wirtherle (2019), to recognizing and breaking patterns in reasoning, adjusting action flows, noticing potentials, strengthening self-regulation as well as self-monitoring and self-efficacy. The combination of different roles enhances self-perception and contributes to the stabilization of professional identity (Johannsen and Peuker, 2021). Positive effects of SL have been confirmed not only in the short term but also as having a sustainable, long-term impact, as well as effectiveness for further developmental processes (cf. Beißert et al., 2023). Openness to new learning (Kozakiewicz and Schütz Lenggenhager, 2021), examining experiences and adaptive actions, form foundations for transformative learning processes (Stürmer et al., 2023). Deepening reflective activity in SL "requires continuous, connected, challenging and contextualized" (Macknish, 2023, p. 46), as well as structured reflective activity (Harkins et al., 2018), which enables moving from selective noticing, locally making sense to restructuring ideas collaboratively and co-constructing reasoning (Macknish, 2023, p. 41), while avoiding reflective fatigue when the reflective process becomes overwhelming or unproductive (Macknish, 2023, p. 36). Some challenges—beyond focused deepening reflective action and connecting diverse reflection foci—include shifting from reflection-on- to reflection-in-action and working toward bridging theory-practice gaps (Damons and Dunbar-Krige, 2020). Directing reflection to the focus on transitivity and adaptivity in the process is here essential to overcome internal barriers, collisions in reasoning, and self-imposed limitations, moving beyond deficit-based framings, and fostering transformative learning with re-examination of personal beliefs and actions (Toronyi, 2020) and supporting the development of alternative and innovative actions.

An important learning dimension in SL emerges from collaborative reflective activities, "generating new co-constructed

understandings" (Walsh, 2022, p. 168), whereby the social-interactive context of team discussions plays a crucial role in this process. Even when individual reflections in the group appear fragmented, performed, or self-staged, they always contribute to the collective reflection space, supporting collective reasoning and adaptive problem-solving. Individual reflexive contributions create a shared dialogic space in which mutual understanding of the problem, joint analysis, and common standards of adaptivity are co-constructed, facilitating collaborative reasoning and the establishment of shared norms for appropriateness, adaptive solution-finding, and problem-reasoning. When reconstructing their specific challenges within the group, individuals engage in more or less complex joint reasoning, co-constructing situated perceptions and interpretive frameworks. These are then shaped collectively by multiple subjective theories and expansions, forming what Wagenaar (2024, p. 40) describes as a "process of co-producing a third-order case," which also functions as a reflection trigger for the entire group. The argumentative dynamics in joint reasoning (Tietze, 2010, p. 84) functions as productive irritation and reflection anchor, fostering further dynamics and the development of shared new solutions and standards. The team, as an adaptively self-reorganizing system, develops authentic dynamics within the collaborative reasoning and problem-solving process that largely depend on the communicative competences of its members and their interactive openness to actively engage in, and coherently and co-adaptively steer, the co-constructive process. These competences include, among others, the ability to use divergences as a productive interface for co-constructive and solution-oriented reasoning (Lazovic, 2025c), to establish coherent argumentative connections, participate in exploratory co-argumentation and employ discursive transitioning practices leading to new adaptive solutions (cf. (Lazovic, 2025b, 2025c). The dynamics arises, among other things, from the self- and other-positioning (Kim and Angouri, 2019), polarization of viewpoints, groupthink, social inertia as well as group cohesion, negotiated interactional patterns, and the alignment of normative orientations and evaluative frameworks as well as balancing epistemic stances and asymmetries (Fredagsvik, 2021). Novices, as the target group of this study, still developing collaborative forms of reflection, in the absence of structured formats, such as case-based counseling or process organization, tend to organize their collective reasoning in an additive manner with individual focus, leading to fragmentation, relatively limited and shallow reflection, focused on in-grouping and sharing emotional experiences. These dynamics are therefore important to examine, particularly in terms of how collaborative reflection competencies evolve over a given period, from an interactional-linguistic perspective, and by comparing interactional patterns at the beginning and end of the learning experience. A further research gap concerns the relationship between individual and collective modalities of reflection and their developmental relevance for novices. The present study starts here by investigating transitive reflexivity in the service-learning counseling context over one semester, focusing specifically on what unfolds within the group's shared reflective space—that is, on reflexive processes that are jointly articulated and co-constructed, while the detailed dynamics of collaborative negotiation and reasoning within the group fall outside the scope of this study. In addition, a case is used to illustrate how this dynamic reflection landscape manifests and to what extent it shows orientation toward greater group-related reflection.

3 Aims of the study, participants and methods

This study investigates how prospective GFL teachers perceive their actions in the new emerging role as FLL counselors, as elicited during team meetings in a collective reflection space. It pursues two primary aims. First, it examines both the general and domain-specific challenges the participants identify at the beginning and the end of the counseling process as well as their self-perceptions of adaptive practices, tracing potential changes in their understanding over time. In this study, three dimensions of transitional reflexivity were identified and analyzed: transitivity, as the movement from recognizing challenges to engaging in adaptive practices; reflective transition, as participants' evolving self-awareness in these two reflection domains; and transitioning toward process-oriented and adaptive understanding of advisory actions. The analysis provides general insights into collective reflection processes and, through a case-based analysis, illustrates the specific dynamics of transitivity and micro-reflective developments. These findings complement earlier interactional-linguistic analyses of their adaptive actions and practices in counseling (Lazovic, 2025a, 2026a, 2026b).

3.1 Participants and study context

The participants are 14 female prospective GFL teachers (PTs), aged between 23 and 28, who, for the first time and over the course of one semester, take on the role of language learning counselors for foreign exchange students (Ls). Ls, with language proficiency ranging from B1 to C1, experience difficulties in FLL in new interactional contexts, regarding both every day and academic registers, as well as in oral (preparing presentations, participating in discussions) and in text production. The PTs engage in their counseling activities within a service-learning (SL) context during the third semester of their Master's program. Six PTs are enrolled in the MA program specializing GFL for adult education, and eight are preparing to become teachers with a focus on German as a second language (GSL) in school settings. This composition enables the integration of different perspectives and disciplinary orientations, fostering mutual learning. As they have no prior teaching, counseling, or service-learning experience, this setting provides a uniquely formative learning opportunity. These initial practical experiences are particularly memorable and cognitively stimulating, and even within the one-semester timeframe, they exert a significant impact on the novices' transformative learning processes and emerging professional selves. This is due to the novelty of the experience, the collaborative setting, and the use of different reflective interfaces, framing their professional engagement as an ongoing adaptive process. The significance of these experiences is further evidenced by the integration of related themes in subsequent project work and Master's theses, as well as by the participants' initiative to continue engaging in such activities voluntarily in later semesters. The SL context is co-curricular and closely linked to several seminars, including courses on communication analysis, language acquisition, and intercultural learning. This structure allows PTs to integrate and apply knowledge from various domains, which is particularly crucial for fostering an integrative mindset during this stage of their development. However, due to the PTs' specific interest from the seminar communication analysis, but also the special demands in

advisory context, with interactional practices serving as the central tools for advisory intervention, most of the focus tends to shift toward this area. The aim of this SL setting is not to enforce prescriptive behavior patterns, but rather to encourage an open, learner-centered, and co-constructive approach that supports adaptive and reflective professional development.

The service-learning cycle (see Figure 1) begins with a preparatory meeting, and a diagnostic activity in which the PTs analyze the learners' language biographies and two writing samples (a letter and a pro-contra argumentative essay, both drawing on the reading tasks completed earlier) as preparation for the counseling. This is followed by a workshop on goals, practices and strategies in the counseling context. Afterward, the novice counselors work independently, meeting their assigned learners and reflecting on the sessions individually. The supervisor offers support needed, however, only a few students make use of it, as most reflective work takes place during the team meetings, where PTs take part in parallel with their counseling activities. Within this framework, it was crucial to carefully balance the action and reflective phases, so as to avoid overburdening PTs with reflection, while simultaneously leveraging reflection to support the regulation of professional adaptability and solution-finding in the process. Consequently, an individual reflection modality was encouraged before and after counseling sessions, complemented by a collaborative reflection in four team meetings distributed throughout the counseling process (Figure 1), which serve as the primary data source for this study.
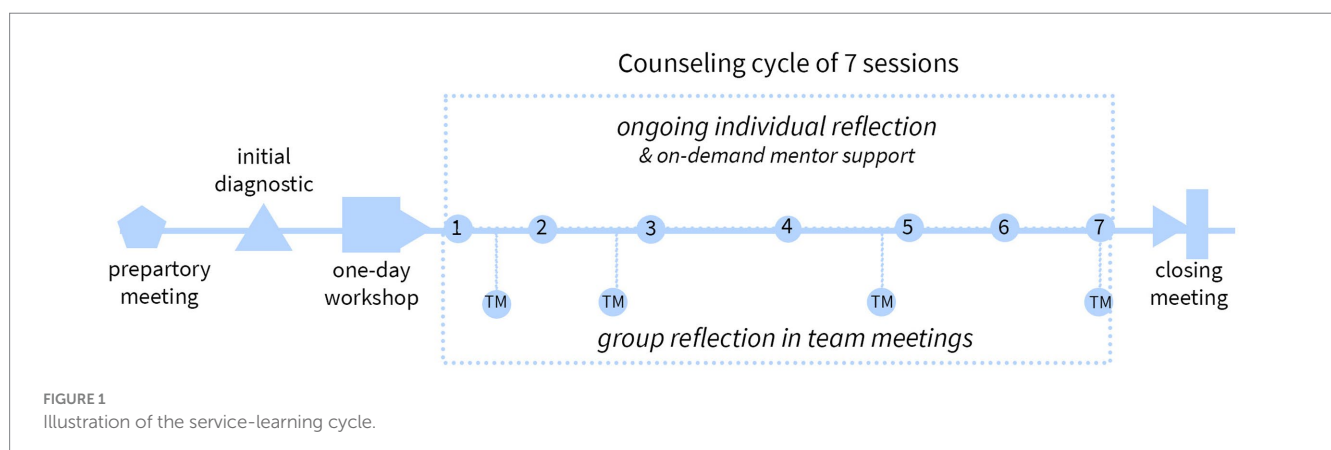
Team meetings were scheduled accordingly (see Table 1), with the initial counseling phase receiving particular support through more frequent sessions—immediately after the first (introductory) counseling session and between the second and third (fundamental in the designing of advisory processes), while accommodating individual dynamics. The subsequent meetings, planned later in the process, aimed to foster counselors' growing autonomy and progression within the counseling cycle. A key objective is to establish routines of reflective practice, and support awareness about adaptivity and self-transformative reflection. Individual reflections complement these processes, channeling collective reflection processes toward individual learning.

Attendance was near-complete for the first and final session, while only approximately two-thirds of participants were present in team meetings 2 and 3, comprising a mix of GFL and GSL prospective teachers. Notably, six of the PTs were particularly active, consistently

contributing impulses to the discussions and stimulating joint reasoning, whereas others tended to participate in a more confirmatory, reporting, descriptive, narrative modus of shallow reflection. Although not all participants attended every session, this did not affect the group dynamics, as participants continued to exchange information and provide updates to one another outside of the team meetings. As most novices lack prior counseling experience, they are not only learning by doing, but also learning to reflect and view their actions as part of an ongoing learning process and to integrate different reflection levels and contexts. Some challenges include role ambiguity and the difficulty of transitioning to a more facilitative, co-constructive, learner-centered approach. Participants report however that after an initial phase of self-exploration they begin to enter a productive, experiential learning mode and express a strong interest for additional counseling cycles to deepen their insights and refine their strategies, as well as the increasing awareness of the relevance of the structured reflection.

3.2 Data collection and methods

The data elicited in collective reflection space during four team meetings include in total 5.5 h of transcribed audio material (Table 1), and are supplemented by individual reflections of seven PTs (individual 49 reflections protocols). The team meetings were recorded in an authentic setting, with strategic device placement and participants' prior familiarization with recordings helping to mitigate social desirability bias, while supporting focused interaction. This elicitation format was selected as open, group-based settings foster deeper cognitive and affective engagement (Trempler and Hartmann, 2020), thereby enhancing both retention and the potential for transformative learning, while simultaneously reducing reflection pressure, facilitating integration into daily routines and in-grouping, and providing a supportive space for encouragement and shared meaning-making. Self-perceptions provide valuable insights into affective constructs and confidence, which influence performance and are closely tied to the willingness to adopt innovative practices and engage with learning experiences (Copur-Gencturk and Thacker, 2020). The meetings analyzed here are characterized by the sharing of experiences and collaborative efforts to understand challenges, supporting new perspectives and possible approaches for future advisory action. However, collaborative reflection tended to center

FIGURE 1
Illustration of the service-learning cycle.

more on individual contributions, which are spontaneously commented on, compared, or followed by recommendations in an additive manner, while joint explorative co-reasoning was less pronounced. While this is not the primary focus, the interactive dynamics of joint reasoning warrant further investigation from an interactional linguistics perspective, in order to explore how collaborative reflection and interaction change over time.

The team meetings followed an authentic, naturally evolving dynamic, oriented to written prompts provided to structure the reflection. This include prompts—previously introduced in the workshop—focusing on first impressions, approaches, and process- and goal-orientation, particularly regarding the constitution of the counseling focus, learning problem redefinition and transformative and analytical work preceding development of recommendations. Further prompts addressed the connection of different counseling topics, balancing directivity, shaping learner contributions, providing recommendations, and scaffolding toward more self-regulated learning, as well as identifying difficulties, proposing solutions, and outlining next steps. In facilitating *reflection-in-action*, supervisor facilitates with these open prompts and occasionally intervenes during the solution-development phase with suggestions, while the key research topics of this study—perceived challenges and adaptation practices—are elicited authentically, without external interference or specific scaffolds.

The parallel individual reflections include similar open prompts, addressing participants' perception of the situation, satisfaction, and descriptive accounts of session flow, learning dynamics, and the focus or the relation between different counseling goals. They further encourage reflection on interactive strategies for activating resources, problem analysis, and prospective planning for further action, including anticipated gains, progression, and concrete plans for support or interactive adjustments. Additionally, participants were prompted to formulate recommendations or derive general principles for the counseling process. The scaffolds enabled participants to determine their own reflective focus and to adaptively design their individual reflection process. However, only seven participants managed to sustain the individual reflection format consistently, highlighting an important relationship between individual and collaborative reflection processes that should receive greater attention in future research. Their consistent reflection was associated with greater progression.

The recorded data is transcribed and analyzed using an exploratory-descriptive qualitative content-analysis, based on Mayring's (2022) approach. Follows an inductive approach, the data—based on coded segments with MAXQDA software—are qualitatively analyzed, thereby paraphrased, condensed, abstracted, and categorized. The data basis comprises a total of 250 units, including 180 for the first research focus on perceived challenges and 70 for the second focus on reflections regarding adaptations. The tabular representations present conceptually abstracted categories derived from the collective reflective space, but include references to individual participants (e.g., PT1, PT2). Coding proceeded in a stepwise manner—initially open (exploratory), then axial (grouping codes into categories), and finally selective (focusing on core categories). Beyond discussing overarching concepts and emerging patterns within the collective reflection context to portray the reflection landscape more holistically, one case is examined in detail to exemplify distinct developmental trajectories of transitive reflexivity of one individual participant. While the analysis remains fully qualitative and considers all data in depth, some quantifications are provided to illustrate general trends, for example, the number of codes for one category in total, or related to specific sub-concepts and their percentage distribution across specific domains. These provide insights into the internal structure and allow changes over time to be illustrated, thereby offering an organizational framework, serving to orient the qualitative analysis.

Strategically distributed to cover different phases of their advisory activity (Table 1), which consists of seven sessions over the semester (Figure 1), the data are summarized for *Time Frame 1* (T1) and *Time Frame* 2 (T2), referring, respectively, to the beginning of the counseling cycle—following an organizational, exploratory first session and the conceptually grounding second counseling session—and to its end phase. This structure allows for an analysis of changes over time by comparing reflections at the beginning (T1) and end of the process (T2), when all PTs actively participate. This enables the examination of transitions, spanning a complete action-oriented cycle and at a sufficiently distant temporal interval, giving reliable and more visible insights in potential changes in reflective orientation than more dynamically shifting micro-level reflections, allowing to capture overarching patterns of transitive reflexivity related to this SL cycle. Although this study captures processes over the course of a single semester and gives one important piece of the puzzle for understanding transitional dynamics of reflection processes, the relevance of this study design, as noted earlier, is ensured by the novelty of the experiences and the stimulative learning contexts, the collaborative reflection space, followed by a specific interface of individual and group activities. Reflection processes in intermediate stages, as well as reflection from a micro-perspective and within the interface of individual and collective reflections, warrant further, more systematic investigation. Another advantage of the study design lies in observing these authentic processes in a unique setting, unaffected by parallel interactions or similar experiences, supports the relevance of the observation of transitional processes within a controlled timeframe. Researcher process-related reflexivity, inherent to qualitative interpretative research, was applied to prevent over-interpretation, and enhance the depth and nuance of findings, considering research ethics. To ensure reliability, rigor, and consistency, all coding decisions

TABLE 1 Overview of team meetings.

Team meeting	Date	Duration (hours)	Participants	Participation in joint reflection & discussion	
1	3. May	1.15	14	All PTs	
2	17. May	1.36	10	4 GFL & 6 GSL PTs	Six of the PTs are particularly active, contributing impulses for the discussion
3	25. June	1.26	10	5 GFL & 5 GSL PTs	
4	20. July	1.19	14	6 GFL & 6 GSL PTs	

were systematically documented, with codes repeatedly reviewed and refined to secure intersubjective traceability. The emic perspective of participants was consistently considered, while acknowledging that subjective concepts were communicated within a collective reflexive space, grounded in shared perspectives, evaluations, and knowledge. Given the researcher's engagement in interactional-linguistic analyses, a consistent, data-driven, sequential, bottom-up approach was consequently applied to ensure that interpretations remained firmly grounded in the data, with careful paraphrasing prior to any systematic abstraction or categorization, and free from presuppositions, experiential biases, subjective preferences, or epistemic predispositions. The epistemic and interpretative foundation was further reinforced through systematic reflection on the researcher's epistemic stance in all steps of the analytical process, as well as through critical discussions in research colloquia. The following analysis first offers insights into perceived challenges (Section 4), followed by reflections on self-perceived adaptations (Section 5); in both sections, general observations are presented first, complemented by case-analytic insights.

4 Perceived challenges in the advisory process

The analysis of perceived challenges within the counseling process revealed several aspects (see Table 2), encompassing multiple interconnected domains. The most salient challenges (62%), pertain to interaction, role management and discursive organization, with most issues being primarily related to learner-orientation, intersubjectivity tensions and in balancing advisory functional and interactional orientation. Advisory-specific actions—assessing learners *in situ*, construction of counseling topics, transforming learning approaches, and fostering reflection—were reported as high challenging in 30%. Less prominent difficulties included evaluating the effectiveness of counseling processes (7%), in terms of recognizing their impact on the learning process and learner uptake.

A comparison across the timeline revealed that the overall categories remained constant, yet there is a clear decline in the overall intensity of perceived challenges, indicating enhanced action confidence, self-efficacy, self-assessment in dealing with difficulties, and flexibility in managing contingencies. The reflective focus shifted from a predominantly problem-centered orientation toward adaptive response strategies. At the same time, despite the general decline in perceived challenges, participants increasingly articulated interactional challenges, thereby deepening their reflection focus with a growing sensitivity to the finer dynamics of co-adaptive advisory processes. This reflects, on one hand, a positive trend of heightened interactive awareness with more specific reflection triggers, and on the other hand, a negative trend of growing interactive uncertainty and a sense of difficulty in finding appropriate ways of acting, as challenges in interactive accommodation require continuously reconsideration in light of evolving learning and interactional dynamics. A slight increase in perceived challenges related to evaluating effectiveness and fostering learner reflection indicate a shift in problem perception toward deeper process involvement. Additional challenges, reported in some cases, include uncertainty regarding language choice (L1, L2, multilingual), ensuring coherence between counseling context and other learning forms, suggesting a positive reflexive movement specific for the advisory and SL context. Novices face in general high planning uncertainty and pressure to adapt, when improvising in response to learners' impulses or managing contingencies and local adaptations, which underscores the practical relevance of fostering transitive reflexivity with more scaffolding in this (reflection) context.

4.1 Challenges arising from discrepant understandings of roles and the counseling context

Perceived challenges and tension arising from misconceptions about roles and scope of action arise from a collision between their self-expectations and those of the learners. Novices show initially a high sensibility to learners'

TABLE 2 Overview of general perceived challenges in advisory contexts.

Topics	Example responses PT (denotes reference to participant)	Distribution		
		Time 1	Time 2	In total
		Number of coded segments		
		120	60	180
Organizational matters	*I struggle with time management and planning.* (PT 1)	7%	—	4%
Role management	*I feel like I'm acting as a tutor.* (PT 6)	23%	18%	22%
Interactional challenges	*I respond automatically by giving classic recommendations instead of counselling.* (PT 8)	32%	45%	36%
Formation of counseling topics	*Ln always comes up with new impulses. I do not know what to focus on and how to connect it.* (PT 9)	15%	2%	10%
Evaluation of effectiveness	*I'm unsure how to determine if a session was successful.* (PT 2)	5%	10%	7%
Learner assessment	*The biggest challenge is assessing the Lns real learning level.* (PT 3)	5%	5%	6%
Facilitation of reflective practice	*Ln is not able to reflect and I do not know how to initiate deeper reflection.* (PT 5)	2%	10%	4%
Transformation of learning approaches	*Ln sticks to learning routines and resists change, which I still cannot improve.* (PT 12)	11%	10%	10%

projections and role-related expectations, which create additional pressure for PTs, which, as summarized in Table 3, can be attributed to several domains: learner's discursive interference and false expectations, caused by blurred boundaries between private tutoring, classroom teaching, tandem, or peer learning, leading to high expectations regarding input and learning outcomes, which make novices feel compelled to assume the role of knowledge providers or teachers—contrary to the advisory principles of indirect and co-constructive solution development and supporting self-regulation and exploration; expectations of epistemic and guiding authority, resulting in epistemic asymmetry and pressure when supporting epistemic self-repositioning or upgrading the epistemic position of the learner; demands for emotional and motivational support, which increase the pressure to operate simultaneously on multiple advisory levels and work in domains of emotional regulation, where they do not feel prepared enough (Lazovic, 2025b). Further constraints arise from learners' resistance to reflection, autonomy and self-regulation, which leads to divergences in role-related expectations, difficulties in fostering a co-constructive interactional modality and learners' transitioning toward more agency and self-initiative. The PT's empathic acknowledgment of these role-related expectations—while restrictive and conflicting with PTs' own perspectives on mutual role transitioning—frequently results in internal resistance, loss of agency and collision in interactive orientation, as expressed by one novice: "*I try to engage in counselling work, but I end up falling back on the way the learner behaves towards me.*" (PT 11). Nevertheless, recognizing these tensions is essential for promoting a shift toward strategically navigating between internal and external expectations, thereby fostering a bridging process and supporting a role transitions toward more co-adaptive forms of interaction through empathic practices (Table 3) (Lazovic, 2025a, 2025b, 2026a, 2026b).

On the other hand, PTs articulate awareness of self-expectations, indicating internal tensions and self-limitations (see Table 4). These are partly related to general role-transition challenges experienced in adapting to the counseling role, breaking out of the routine of being a teacher, which require transforming their epistemic stance, agency and redesigning practices. They also experience internal normative pressure and behavioral conformity, as they feel compelled to act according to standardized patterns and ensure procedural consistency,

rather than flexibly exploring and adapting to the new context, which on the other side collide with authentic interactional contingences and needs to react adaptively to learning dynamics. Another challenge lies in the epistemic tension between the pressure to demonstrate professional authority, knowledge, and self-confidence, while simultaneously managing epistemic uncertainty and action insecurity due to their novice status, thereby balancing different epistemic tensions. PTs report a strong limiting and emotionally loaded feeling of lacking knowledge (epistemic uncertainty) and negative epistemic emotions related to noticing-the-gap-moments, which they gradually accept and normalize as ongoing learning process, or cope with through different strategies of managing epistemic tension through repositioning learner epistemically. Further challenges relate to controlling excessive over-accommodation and the need for validation and recognition, typical in empathy-promoting settings like in SL context. PTs also report an overload of systemic interconnectedness, as they attempt to navigate the multidimensionality of learning processes, manage interrelations among various learning dimensions, and identify effective strategies to address these interconnections. This process necessitates spontaneous role shifts and changing perspectives toward an action-research-oriented stance. These productive irritations foster self-distancing and, at the same time, strengthen learner orientation and the reflective questioning of personal boundaries for self-protection in processes of empathic alignment with the learner.

The challenges identified here reveal not only tensions between self- and other-related expectations and role management tensions, but also internal role contradictions within specific domains. As productive irritations they shape adaptive role conception and its transition in multidimensional ways—though not always resulting in flexible multiple role understanding, but sometimes in critical adherence to established assumptions about their professional role. A comparison across the two time frames suggests that novices initially engage more intensely with the external expectations, while over time they become increasingly aware of their own limiting self-expectations, which they begin to reflect in the sense of their own process transitioning, thereby developing a flexible understanding of their multiple roles and multidimensional actions. An increased self-regulation can be observed with regard to challenges experienced related to epistemic self-positioning, need for procedural consistency, and as reflexive coping with the multidimensionality of learning processes.

TABLE 3 Challenges as a result of learners' false expectations/role projections.

Topics	Example responses
Discursive interference	*Ln sees our session as her German lesson or as another opportunity to practice German. /Ln believes I am tutoring her.* (PT 3, T1)
Expectations of input	*Ln has expectations that I should provide concrete strategies or give her support structures. /Ln behaves like this: Why do not you just give me the answer? Why do you keep asking questions?* (PT 11, T1)
Outcome-orientation	*Ln is dissatisfied because nothing concrete is visible as a final outcome.* (PT 14, T1)
Requested authority	*Ln sees me as an authority figure and expects to follow my instructions.* (PT 5, T1)
Emotional, motivational support	*Ln has expressed the expectation to be motivated and encouraged, wanting me to explain why learning German is so enjoyable.* (PT 7, T1)
Autonomy resistance	*Ln was irritated when I encouraged taking responsibility for her own learning.* (PT 6, T1)
Reflexive resistance	*Ln could not understand why one should reflect on learning. While Ln uses many strategies unconsciously, he's reluctant to think about them actively.* (PT 9, T2)

TABLE 4 Difficulties due to novices' self-expectations and role assumptions.

Topics	Example responses
Role transition issues	*When you are accustomed to the role of teacher, you naturally fall into it. I constantly find myself trying to explain things. It takes effort to stay focused on the new role, which I still do not fully understand.* (PT 7, T1)
Normative pressure/Behavioral conformity	*I feel that it has not yet taken the desired form as described in the books or as we discussed.* (PT 2, T1)
Need for patterned actions/procedural consistency	*I need a structure to hold onto. After her long narration, I felt overwhelmed because I did not know how to draw a conclusion.* (PT 1, T1)
Epistemic tensions	*There were many questions about topics I did not know much about. It threw me in at the deep end, but now I realize that you cannot know everything.* (PT 13, T2)
Excessive accommodation seeking validation	*It is important to comply with the learner's wishes, as otherwise their confidence may disappear. I do not want to lose sympathy points. I want Ln to like me.* (PT 11, T1)
Systemic interconnectedness overload	*Sometimes, it's not about the language at all, but about other issues. Once learners open up, everything comes out as part of their personal history. It can sometimes become almost therapeutic, which completely overwhelms me.* (PT 4, T2)

4.2 Challenges in learner assessment and transforming learning approaches

Novices do not initially incorporate additional diagnostic measures beyond the initial assessment. However, as their learner orientation strengthens during the counseling process, they recognize the need for such diagnostic grounding before higher-order advisory activities can be effectively managed. At the same time, they identify increasing challenges in understanding learners' resources and learning dynamics. They address in this context diagnostic challenges arising from the multidimensional nature of learning difficulties and disparities within the learning process—for instance, in relating different competence domains—as well as interpretive challenges and discrepancies between self- and external assessments, including those related to reasoning, attributions and learning identity (see Table 5). PTs address learners' unrealistic expectations regarding workload, learning processes and goals, which in turn trigger additional challenges, such as how to communicate necessary reductions or compensatory measures in a face-saving and constructive manner. They reflect on the challenges due to the need resolve such issues before higher-level counseling objectives can be pursued, particularly in terms of prioritizing resources and addressing contradictions that form the basis for further advisory actions. Further challenges include learners' adherence to learning routines, limited adaptability, and, most notably, resistance to advisory interventions aimed at initiating transformational change in the learning process. PTs find themselves working argumentatively on these divergences while striving to balance them with cooperative forms of engagement—an interplay that generates further interactive tensions.

PTs demonstrate increasing sensitivity to transitional dimensions within the learning process, relating these to their own transitivity and perceiving their actions as inherently adaptive, and oriented toward learning dynamics. Over time, some of these learner-induced perceived challenges tend to diminish, as novices begin empathically to recognize and acknowledge these dynamics, reflecting more on the pre-grounding actions to support co-adaptation and bridge perspectival differences. This includes a growing awareness of the multidimensionality of learning processes, the varying dynamics across domains, and consistent efforts to work through internal resistance. By resolving reflexive challenges linked to assessment and understanding learners' perspectives, novices develop a stronger focus on the processual, transitive dimensions and co-adaptive nature of their interaction, thereby fostering a sense of reflective composure, enabling them to engage with reduced emotional entanglement.

4.3 Noticing interactive challenges

The interactive domain, identified as the most challenging (see Table 6, T1), is initially perceived as less difficult in relational aspects (20%) and discourse navigation (33%), but more challenging in initiating and activating practices, and in responsively following up on and adaptively responding to learners' contributions (40%). PTs reflect on their overt focusing on the interactional dimension itself rather than on the advisory process, suggesting that reflection-in-action oriented toward interaction may inadvertently constrain action orientation and focus on the process. This may be attributable both to the authentic interactive challenges encountered in practice as well as to the effects of the workshops and seminars on communication analysis, which appear to have heightened participants' awareness of interactive practices as central instruments of advisory work and enhanced their interactional sensitivity and self-monitoring. Over time, however, overall positive developmental trends become evident (see Table 6, T2): participants demonstrate increased self-confidence and improved coping capacities, particularly in managing discourse navigation and relational dimensions, as well as in providing impulses and activating. Nevertheless, following up learners' contributions remains a persistent challenge, with an increase in its perceived difficulty. This may, in addition to reflecting genuine difficulties, be interpreted as indicative of an intensified learner-centered orientation and a heightened awareness of the complexities inherent in adaptive bridging to facilitate developmental transitions, a process demanding ongoing adaptivity, responsiveness, and the ability to endure and navigate the "waves" of continual change in the multidimensional process of transitioning. It may also result from an increasingly reflective engagement with transitive modes of action, which progressively serve as starting points for reflective activities. As evidenced in the example responses, novices employ terminology that denotes adaptive, open, process-oriented and multi-optional modes of action, as well as an appreciation of the multidimensionality of the

TABLE 5 Perceived challenges in assessing and transforming learning approaches.

Key concepts	Example responses
Diagnostic challenges arising from multidimensionality of learning problems	*I cannot always assess the level of learning because the written tasks are very different from oral activities. I would have to do more diagnostics to better assess the actual learning level. Ln has so many weak points that I did not know where to start and how to relate them. (PT 5, T1)*
Differences in self and external assessments and related reasoning	*Ln had a completely different assessment of her competence than I did. I believe she needs to learn to assess herself more realistically. (PT 8, T1)*
Learners' unrealistic expectations regarding learning workload/goals	*Ln had unrealistic expectations. It was important to set boundaries and clarify what is actually realistic. Before discussing learning strategies, I first had to address her misconceptions about the learning workload and goals. (PT 12, T2)*
Learner's adherence to learning routines, lack of learning flexibility	*Ln is not open to different learning practices, but rather acts as a consumer of certain services and sticks to his learning routines. (PT 2, T1) Ln seems to have learned a certain way of approaching learning where he felt confirmed in his learning methods. This is so deeply ingrained and not possible to change, because there is no flexibility in learning. (PT 14, T1)*
Transformational resistance	*Ln prefers to be strongly guided by tasks and feels secure with clear task definitions. Ln enjoys completing tasks without reflecting and becomes frustrated whenever I try to initiate some reflective move. I encourage transformation, but Ln remains attached to his preferred strategies. (PT 1, T1)*

TABLE 6 Self-perceived interactive challenges.

Key concepts	Example responses	Time 1	Time 2	In total
		Number of coded segments		
		45	25	70
Relational matters	*The openness and trust are central but challenging. (PT 6)*	20%	5%	16%
Discourse navigation	*It's challenging to steer the conversation and link various sequences to coherent cycles. (PT 9)*	30%	10%	24%
Impulses/Activation	*I do not know which tactical prompts would be helpful to open up opportunities for exploration. (PT 11)*	40%	30%	36%
Reactive behavior following-up	*I tried to respond spontaneously, but I lack the knowledge to design an adaptive process. (PT 13)/I'm not sure how to follow up on the learner's statement, should I ask questions, offer recommendations, or provide input? (PT 3)*	40%	60%	44%

processes involved. Moreover, they identify reflective points of decision within reflection-in-action, signaling the emergence of transitive reflexivity as a component of their problem perception.

Challenging aspects at the relational level (Figure 2) primarily involve the reduction of perceived dominance and epistemic asymmetry, thereby achieving a balance between the interactive positions required to open and direct learners' actions in advisory sense (Example 1). Further difficulties arise in creating interactive spaces that foster learners' self-initiated engagement (Example 2) and overcoming difficulties, for instance, when repositioning the learner epistemically, engaging in co-construction, and initiating shifts that enable greater agency. Several participants report challenges related to trust-building and bonding (Example 3), displaying emotional responsiveness (Example 4), and adaptively addressing and transforming learners' expectations, all of which place considerable demands on maintaining interactive harmony, alignment and intersubjective orientation while constructively engaging with underlying dissonances (see Figure 2).

The perceived challenges in discourse navigation primarily involve uncertainty regarding mutual understanding and intersubjective alignment (Example 5), which leads to an increased need for explicit verification, resulting in epistemic imbalance and disruption at transitional points, often accompanied by a loss of discursive orientation through side sequences. The most significant

difficulties emerge from over-adaptability and the resulting loss of orientation due to prioritization issues when responding to learners' contributions (Example 6). These include unintentional alignment, re-prioritizing, and selecting impulses, re-orienting to ambiguous learners' impulses rather than adhering to a predetermined plan, leading to structuring problems and hindering the connection of spontaneous impulses to specific counseling goals, evoking a sense of inconsistency instead of the preferred routine and structure—thus revealing a critical aspect of transitive reflexivity that arises from the uncontrolled dynamics of co-adaptivity. Conversely, in some cases, a lack of adaptability results from rigid adherence to a predefined plan, which negatively affects coherence and smooth thematic transitions (Example 7). These two reflective strands—loss of control and in intersubjective alignment on the one hand and excessive adaptation on the other—often intersect within participants' reflections and call for a transitively reflexive focus aimed at reconciling these antinomies in discursive orientation and in the management of co-adaptive dynamics.

Challenges identified in relation to activation and initiation (Figure 3) arise from the perceived competence gaps, including the feeling of limited repertoire of various prompts and elicitation impulses beyond questions (Example 8), or the qualitative aspects of questioning (Example 9–10), particularly regarding focus, direction, depth, progressiveness, alignment, and coherence of transitions, as

1. *The balancing act between stepping back and contributing remains a significant challenge. (PT 2, T2)*
   I feel like I take on the more dominant role and steer the learner in a specific direction. (PT 11, T1)
2. *I struggle to engage the learner - I want to take a more passive role and provide targeted prompts*
   to encourage the learner to take more initiative and find solutions on their own. (PT 6, T1)
   I need to work on handing over the lead to the learner. (PT 9, T1)
3. *I need to work on trust more, as the learner is rather introverted and need to open. (PT 12, T1)*
4. *The learner seemed frustrated, but I felt like I wasn't addressing it properly or well enough. (PT 3, T1)*
5. *I often need confirmation whether she really understood me and can follow me up. (PT 5, T2)*
6. *I'm inconsistent in structuring the session because I consider the learning goals and needs of the*
   learner ad hoc. (PT 9, T1)
   Ln comes with so many new impulses that I find it difficult to connect. (PT 13, T1)
7. *In retrospect, I feel it would have been more valuable to activate the learner's resources and*
   build on them more in constructing the discourse, than orienting according my plan. (PT 1, T2)

FIGURE 2
Example discussion points about perceived challenges at the relational level.

8. *Instead of asking lots of questions, it would be more appropriate to set different impulses.*
   But I don't have any strategies of this kind. (PT 7, T1)
9. *My questions are too vague, broad, overarching. (PT 4, T1)*
   I didn't delve deep enough with questions, but rather moved on. (PT 8, T2)
10. *I intended to move in a certain direction, but I couldn't guide where I originally intended. (PT 1, T1)*
11. *To activate the learner, I asked a lot of closed questions, which then had a frustrating,*
    almost inquisitorial effect on the learner. (PT 11, T1)
12. *I am overwhelmed with questions in general because learner expect us to specifically tell them*
    what to do and to be input provider and not to ask. (PT 5, T2)

FIGURE 3
Example discussion points about perceived challenges regarding activation and initiation.

well as the balance between variability and routinisation of particular forms. Another challenge concerns the management of question antinomies, related to balancing their stimulating potential for co-construction and learner support against tendencies toward control or restrictive guidance, and mitigating undesired effects such as an inquisitorial tone, over-direction, or overly instructive formulations (Example 11). These aspects reflect a marked uncertainty in employing questions as reflective prompts and as scaffolds for deepening and enhancing engagement. Most notably, participants experience tensions between the interactional functions of their questioning practices and learners' expectations for input or explanation (Example 12), often resulting in internal collision in orientation and uncertainty regarding their scope of action, experiencing uncertainty regarding discursive transitioning and balancing stimulating learner-specific development, steering and repositioning. Over time, reflections indicate a progression toward more complex questioning practices, thereby addressing the integration of multiple question types, their coherent transitions, and interlinked question sequences to scaffolding practices that recursively build upon and elaborate learners' initial actions (see Figure 3).

The most pronounced domain of challenges concerns reactive and responsive behavior in follow-up practices (see Table 7). On one hand, these difficulties arise from novices' self-recognition of falling into routine-based or scripted actions, automatically resorting to explanation or directive recommendation, instead of engaging in co-constructive practices. Novices reflect on their difficulties or

limitations in reacting *ad-hoc* to local contingencies, particularly when aligning the learner's narrative flow with advisory objectives and facilitating transitioning toward deeper and focused reflection. Specifically, actions such as (selective) focusing, pointing, directing, steering, and abstracting from learners' contributions are identified as particularly challenging. On the other hand, self-perceived challenges in follow-up practices arise from deficiencies in dynamic process facilitation strategies and uncertainty about which follow-up actions would most effectively advance the process and support learner transitions. PTs reflect on the limited variability of their approaches, including the balance between guiding and co-constructing, as well as the extent to which actions should be elaborated, explained, or supported through joint reasoning. This indicates ambiguity in transitive orientation, interactional tension and uncertainty regarding how to co-adaptively design the transition move, balancing interactional and learning dimensions. Further challenges include a lack of self-regulation regarding language complexity and recipient-oriented formulations, such as pacing the speech rate or simplifying.

Novices further reflect on challenges in balancing along a continuum from indirect and implicit to explicit and directive approaches, related to recommendations and suggestions for alternative actions. This balance reflects a concern for co-adaptivity, in the sense of accounting for learners' expectations and needs while modulating the interactive position to reposition them toward a more agentive and initiative-taking role. Another key challenge lies in designing follow-up moves as intermediary, bridging, or transitional

TABLE 7 Perceived interactive challenges with reactive moves and following-up learners' turns.

Topics	Example responses
Scripted actions	*I often act according to automatisms and offer standard recommendations. (PT 2, T1)*
Limited adaptivity to manage contingences	*There are just so many unpredictable situations and I had problems to react ad-hoc. (PT 6, T1)*
Handling narrative flows	*There was so much narration on her part, and I was worried that this would disrupt the pattern. I was overwhelmed and did not know how to integrate it all. (PT 7, T1)*
Process facilitation	*I did not have any strategies at that moment to move the process forward, and I thought, well, it's better that she tells something. (PT 5, T1)*
Pointing/Focusing	*I find it hard to abstract as well as to focus. (PT 1, T2)*
Design, potential & quality of recommendation	*I think I should explore additional action recommendations or offer a broader range of options and elaborate on them further. (PT 10, T2)*
	I was uncertain whether it was a clear-cut recommendation or an alternative course of action, where I was expected to provide suggestions. (PT 14, T2)
Indirectness—directness	*I find it difficult to strike this balance between prompting them to work through their own issues, while ultimately providing little to no input, or offering indirect recommendations and guidance. (PT 8, T2)*
Implicitness-explicitness balance	*I was acting in a directive manner and giving advice, when it should have been more implicit. (PT 12, T1)*
Bridging and facilitating follow-up	*I had trouble providing focused or pointed comments so that he could find solutions on his own. (PT 13, T2)*

steps that support, deepen, and guide the advisory process in ways that activate learners' potential for self-initiated, progressive actions while facilitating reflective engagement in follow-ups, for example in supporting transitioning from narrative-focused contributions to goal-oriented, learning-directed engagement, which can destabilize the discursive framework through hybrid actions and ambiguous transitions. This reflective trigger points to a deeper problem perception and an increasing transitive and co-adaptive approach. A comparison of reflections on the timeline reveals shifts away from general self-awareness on follow-up moves and reflections on external, self-imposed limitations or isolated contexts and practices in general terms toward more sophisticated, specific, focused, in-depth reflective triggers with transitive considerations and integrated within action flows. These reflections increasingly emphasize PTs co-adaptive understanding, process- and transitive orientation.

4.4 Evolving transitive reflexivity in problem perception: a case-based illustration

Complementing these general insights within the collective reflection space, the following section illustrates—using an individual case of participant PT 10—reflexive transitions in problem perception observed across multiple sessions (Figure 4). The reflection in the first team meeting reveals a pronounced sense of epistemic uncertainty, characterized by feelings of overwhelm in response to unexpected challenges, situational complexity, and the pressure to react spontaneously to contingencies. It exposes strong negative epistemic tension and an emotionally charged noticing-the-gap feeling, marked by perceptions of insufficient knowledge and limited interactional competence. A negative self-concept is further evident in a deficit-oriented framing of the situation, emphasizing problems and dwelling on difficulties, and an overgeneralization of singular experiences, instead of engaging with the process as a learning opportunity. The PTs does not isolate a clear problem area, but rather articulates multiple perceived deficiencies in a stream-of-consciousness manner,

primarily focused on her understanding of her professional role and self-limitations, hindering the emergence of concrete action strategies. A distinctly evaluative, prescriptive and normative stance is evident, shaped by the belief in identifying the "right" or "best" strategies and by rigid role expectations, as well as by the uncritical transfer of theoretical assumptions and internalized and idealized standards of appropriateness.

The reflection problematically centers on self-referential concerns related to role understanding, framed within a normative and evaluative mode of reasoning. This stance is reinforced by self-imposed demands derived from an uncritical adoption of theoretical principles (e.g., to avoid directive behavior or explicit explanations), which constrains reflection-in-action and fosters a sense of inadequacy when theoretical ideals prove difficult to implement in practice. Predominantly self-focused, the reflection is lacking focus, analytical stance and integrative connections between different experiential dimensions. It is narratively structured yet conceptually shallow, conveying personal resignation and feelings of professional insufficiency, while the learner's perspective remains unconsidered, except for a brief and unspecific reference to possible impact/use (*the learner speaks at least*). Reflection is thus oriented primarily toward self-expectations, role performance, and perceived deficits, rather than toward proactive or adaptive engagement. Nevertheless, some aspects of process-related awareness and transitional orientation are evident in the use of word such as *transition process, shape, guide the process*, indicating emerging moments of reflection-in-action (with reflexes of inner speech within action flow), and an awareness of spontaneous adaptive efforts.

The reflection in the second meeting reveals some developmental trends: It demonstrates greater learner-centeredness, a growing awareness of the plurality of one's own role, and the awareness of transfer from other professional contexts. This is accompanied by greater stabilization of both epistemic and emotional dimensions of experience, as well as a heightened awareness of one's own adaptive intentions and practices. The reflection no longer appears fragmented but rather displays a more coherent, process-oriented structure,

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Case-based analysis of reflections from the participant PT 10 across several team meetings

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Reflection in the first team meeting

And there was just a lot that was unexpected. I had to react on the spot, and then I kind of saw myself more as someone giving input—which, in this kind of transition process, actually isn't the role I was supposed to take. And then I kept thinking: is this directive, or is it not? I just didn't have any questioning techniques, no strategies in that moment to somehow move the process forward through the "right" kind of questions. And sometimes I thought, well, at least she's talking. But I didn't really feel like I was actually doing counselling in that moment. I tried to respond spontaneously, but I eventually realized—I just lacked both the questioning techniques and the knowledge on how to shape and guide the process.

Reflection in the second team meeting

Basically, throughout the entire counselling session, I tried to hold myself back and to use impulses to encourage the learner's own thinking, putting her at the center of the process. I didn't always succeed in that, though. Because of my teacher training, I'm very used to the role of the explaining and directly helping, so during the session I sometimes slipped back into that role. For the next session, I want to make a more conscious effort to step back even further and to stimulate the counselling process through more targeted impulses or questions. I also need to be more consistent in responding to her request for more corrective feedback.

Reflection in the fourth team meeting

I realized that I definitely need to ask more in-depth questions when problems come up. In some situations, I also found myself unsure—like, should I give advice now, or try to support and maybe gently push her to more self-reflection, or should I ask further: like, why is it like that? Why do you think that is? Why are you feeling this way right now? But also, good listening is really important—so that you can pick up on or decode certain signals from the person you're counselling. Just really paying attention to those things. And also being patient again and again, and giving feedback on what was said. Those were some of the key things for me.

FIGURE 4
Example of a novice counselor's reflective activity over several team meetings.

focusing on learner activation and the facilitation of adaptive behavior. The reflective focus is more clearly defined, as activities are described with greater intentionality and integrated into action flows. The tone is less evaluative and emotionally loaded, and more self-analytical with attempts to attribute challenges, within a short problem-analysis sequence, however still reflecting a rather one-dimensional appraisal, lacking in-depth situational analysis. The professional self-image is addressed in a transitional and transformative manner, allowing for acceptance, affective normalization and elaboration on perceived missteps. Instead of initial problem-centered approach, there is a discernible shift toward the formulation of adaptive future-oriented actions, marking a movement from problem recognition toward solution-oriented reflection. This indicates a more deliberate self-regulation of adaptive behavior, supported by concrete ideas for implementation and an emerging orientation toward bridging the learner's and one's own perspectives. The reflection also acknowledges implicit connections to other interrelated dimensions of action that may act as limiting or destabilizing factors for adaptation, leading to reflections on how to sustain professional consistency when confronted with impulses that could challenge it, indicating a proactive, transitive and multidimensional adaptive reflection that goes beyond singular action, engages with transitional "hot spots," thereby organizing different layers of adaptive actions.

In the final reflection, the focus shifts entirely from problem-centeredness to adaptive action, with actions consistently framed as alternative courses of response. The novice increasingly replaces the term *problem* with *unsure*, signaling emotional self-regulation, greater tolerance for ambiguity and a general adaptive stance with reasoning on multiple potential actions. This shift reflects a growing epistemic certainty, demonstrating a confident epistemic positioning within the reflective process. The reflection appears more focused, specific, situated, is deeper and functionally oriented, encompassing multiple dimensions within the flow of action, thereby simulating situated talk with learner, also as reflex of inner self-talk, thereby indicating a co-adaptive orientation. It has a stronger reflection-in-action orientation, highlighting the ability to adjust and employ alternative practices with more responsiveness. The presence of numerous alternative options creates both ambiguity and uncertainty about the transitive direction, but fosters multidimensional reflection on their navigation. The reflection delves deeper into pre- and in-action planning, considers multiple alternative actions, integrates strategies for process monitoring, and allows time for adaptive decision-making. It incorporates elicitation strategies as adaptive pre-moves to access the learner's perspective prior to intervention, serving both diagnostic and monitoring functions. This reflects a situated, co-adaptive, and empathically attuned approach that adjusts dynamically to situational assessments and the interface with the learner. A self-regulatory imperative becomes apparent, emphasizing the control of impulsive actions (*being patient*) and focus on practices with high relevance for the learner, consistent with a co-adaptive orientation. The initially uncertain and emotionally problem-focused stance marked by a negative self-image is now replaced by a wide repertoire of adaptive strategies, an agentive and self-trusting attitude, and a transitive understanding of professional processes. Reflection thus increasingly operates within the action flow, enabling *ad-hoc*, learner-oriented, responsive interventions. The transitive dimension is expressed

through a deeper understanding of process dynamics, active process monitoring, and reflective consideration of one's positioning for process regulation and opening reflexive spaces for different transitive directions, consolidating co-adaptivity as a guiding principle for responsive action.

5 Self-perceived interactive adaptations

Reflections on self-perceived adaptive actions can be classified into three interrelated domains (see Table 8): approximately half address process-related adaptations, one third relate to general organizational and relational aspects, and the remaining instances focus on learner-oriented adaptations, including interventions related to agentive and epistemic positioning and emotional-regulative adjustments.

Initially, reflective activity is relatively balanced across the various domains; over time, however, it gradually shifts toward a stronger emphasis on process-oriented adaptations, accompanied by a decline in reflections related to organizational, relational, and learner-centered aspects. This shift does not so much represent an expansion through new impulses as a deepening of reflection—manifested in heightened focus, refinement, and the emergence of co-adaptive, transitional reflexive orientations embedded within ongoing action flows rather than confined to discrete interactional layers. Moreover, a discernible

transition is evident from initial macro-level, discourse-structural adjustments toward reflections on micro-level and multidimensional adaptations related to specific practices. This indicates a growing sense of interactional self-awareness, self-monitoring and self-regulative stance accompanied by a deeper focus on particular dimensions of practice and their design. Reflections progressively foreground multidimensional adaptive processes, underscoring the dynamic interplay between functional, interactional mechanisms and learning-specific orientations, thereby stimulating learners' co-adaptive engagement. The following section presents each domain in greater detail.

5.1 Domains of self-perceived interactive adaptation

Reflections on adaptations related to organizational level include (Figure 5) managing the tension between spontaneity and adaptive planning, and regulating relational dynamics. Within the first domain, novices reflect on developing strategies for time management, visualizing and monitoring progress, structuring conversational flows, and navigating discourse with greater transparency. The further reflection focus is on adjustments across short-, medium-, and long-term planning levels, expanding this gradually across various dimensions of learning. They reflect on strategies to sustain the interactive flow, deliberately outsourcing certain elements to phases of

TABLE 8 Overview of PTs reflections on self-perceived adjustments.

Domain of adaptation	Categories	Time 1 Time 2 In total		
		Number of coded segments		
		36	34	70
Organization & relational dynamics	Managing the antinomy of spontaneity—planning	12%	3%	30%
	Regulating relationship building/bonding	10%	5%	
Process-related adaptations	Opening & facilitating co-constructive spaces	15%	10%	
	Adaptation of recommendations	5%	15%	55%
	Reshaping knowledge-transformative interventions	—	10%	
Learner-oriented adaptations	Fostering learner's agency and epistemic position	5%	5%	15%
	Positive broadening	5%	—	

1. *I try to act as flexibly and adaptively as possible, but I also find it important to routinize certain practices in order to create a sense of security and stability for both sides.* (PT 3, T1)
2. *For me, it was important to accurately assess and not miss the moment when I could step in with further, more in-depth questions.* (PT 9, T2)
3. *I tried to influence the situation by sharing my own experiences or by using other languages in order to ensure an interaction on equal footing.* (PT 5, T1)
4. *Yes, so at first I tried to score some sympathy points for myself, and at that moment, building the relationship was more important to me. That was my initial focus, and I thought of it as a short-term thing. In the medium term, I realized it's important that we meet regularly, and in the long term, the key is reaching the point of self-directed, exploratory-based and creative learning.* (PT 12, T2)
5. *I try explicitelly to step out of the tutoring role and really feel like I've arrived in the role of a counselor. But I still think it's important to flexibly shift between different roles depending on their function, to pay attention to these transitions, and not to be pushed to unintentionally chang the roles.* (PT 14, T2)

FIGURE 5
Examples of reflections on adaptations related to organizational and relational aspects.

autonomous learning, while collaborative planning is used to enhance learner agency, foster a co-constructive orientation, and enable the integration of spontaneous planning. A recurrent theme in reflections concerns the balance between efforts at standardization and routinization and the need to maintain flexibility (Example 1) and respond adaptively to contingencies. PTs emphasize the importance of attuning to learners' needs while maintaining a clear focus and controlling discourse progression. In doing so, they reflect on monitoring to avoid overlooking critical moments for initiating deeper reflection (Example 2). This involves recognizing relevant transitional moments in discourse that allow strategic mobilization of resources, indicating an increasing capacity to monitor interactional and learning-facilitating transitions and discourse dynamics, along with enhanced sensitivity to identifying decisive moments for shifting or supporting these transitions (Figure 5).

Reflections related to adapting relational dimensions and roles, include reducing epistemic asymmetry, adopting the learner's perspective, employing empathic self-disclosures, and drawing on multilingual repertoires (Example 3). Initially, these strategies are reflected as interactional tools to strengthen the interactional bond but gradually evolve into subtle scaffolding mechanisms, developing their advisory multifunctionality. Regulating relationship and bonding are initially conceptualized as an emotionally and interactional regulative anchors and later as a functional empathic interface, that requires a careful balance between closeness and professional distance, displaying empathy and functional approaches. PTs also reflect on adaptive management of responsiveness, thereby on reducing their initial need for acceptance, sympathy, or interactive proximity to strengthen their advisory position (Example 4), as well as on regulating relational dimension in a moderate way to maintain a productive working alliance rather than using them as a resource for strengthening self-efficacy and self-validation. As illustrated in Example 4, novices distinguish interactive adaptation at the local, micro-level, which they later re-design over time and expand through long-term meta-reflections, gradually moving toward co-adaptivity-oriented reflections and on functionalizing interactional bonding for advisory purposes. In some cases, meta-conversations are employed initially as to clarify roles, expectations, and mutual understanding of the situation. Initially experiencing role conflicts or struggles for role consistency, PTs gradually accept role plurality and manage it flexibly, while reflecting on and monitoring role transitions to ensure coherence and functional responsiveness (Example 5).

Reflections on learner-oriented adaptations focus on the one hand on positive broadening activities, including (Lazovic, 2025a): the use of emotional regulative strategies aimed at strengthening learners' self-image and fostering positive self-evaluation through encouragement, positive re-framing, and highlighting achievements as a form of emotional upgrading that shifts emotional valence; fostering emotional stability through resilience-building actions, in acts of "pushing boundaries"; empathically responsive practices, based on assessment of the learner's emotional and motivational stance. On the other hand, novices employ interactive strategies to enhance learner agency, such as, initially encouraging learners to consider alternative courses of action and to increase variability and flexibility in their behavioral repertoire; prompting learners to plan concrete, precise next steps and focus on their implementation; gradually they reflect on adaptations aimed at inviting learners to summarize key points, draw

conclusions, and create abstract rules; strengthening learners' self-analytic perspective on their language development and transitional process.

Reflections on process-oriented adaptive actions (Figure 6) include three reflection domains. The first relates to opening and facilitating interactive spaces and transforming them to more co-constructive actions. This involves adaptations aimed at minimizing the counselor's active, dominant role to providing prompts, impulses and functional re-shaping learners' contributions, and inviting them to engage in more joint actions (Example 1). This is achieved, among other strategies, by using open-ended questions with a relaxed structure—incorporating alternatives and epistemic uncertainty on the counselor's part—to alleviate pressure that may arise from the questioning process. Additionally, PTs reflect on extending waiting times and employing strategies to epistemicaly reposition the learner, as well as adaptively balancing between a restrained-passive and pro-active stance. These reflections suggest an interactive self-monitoring focused on specific discourse positions, where counselors functionally "hold back" and then employ reflexivity-enhancing practices, activating impulses instead of shifting into an epistemically superior and agentively dominant position. Working toward more coherence and scaffolding in question sequencing (Example 2) are also reflected, emphasizing co-constructive interaction, even when this requires persistence and consistent strategy implementation. PTs reflect on their learning process from negative experiences and from co-adaptive behaviors of the learners and their reactions to interventions. Situations associated with negative outcomes—such as learner resistance or negative feedback (Example 3)—serve as highly productive reflexive triggers, prompting adjustments toward a more cooperative, learner-oriented, and co-constructive approach. In some cases, adaptations are reflected as use of sequences with meta-reflections and joint reasoning as pre-moves, helping PTs to adjust their interventions through co-constructive actions (Figure 6).

Reflections on adaptations related to the core act of advice-giving involve firstly expanding the range and variability of approaches, secondly combining non-directive and directive strategies, and also functionalizing less typical practices such as self-disclosures. Additionally, novices reflect on adaption related to presenting possible courses of action in an epistemically open and collaborative manner inviting learners to participate in co-construction. These adaptations include pre-moves or mitigation techniques, as well as softening follow-up questions or reframing of recommendations as questions (Example 4), encouraging learners to engage in co-constructive dialogue and collaborative, solution-oriented exploratory reasoning, while also allowing space for rejecting suggestions and epistemically advancing the learner. Overall, these reflections indicate variety of adaptions, while emphasizing coherent connections to learners' contributions, co-constructive orientation toward joint activities, and epistemic upgrading of the learner.

Although initially less prominent, novices increasingly emphasize adaptations related to shaping epistemical, learning-transitive dimensions and implementing transformative interventions. These self-perceived adaptive practices include follow-up strategies, such as assessing learners' "understanding of the understanding" and intersubjective aligning before proceeding (Example 5), which allow adaptive adjustments of subsequent interventions and bridging actions that facilitate epistemic transitions and learning processes.

1. *For me, it really was something I had to learn - to step back at times and just say something like, 'Why do you think that might be?' What I still find challenging is balancing this stepping back with providing enough input or acting as an impulse-giver. (PT 5, T1)*
2. *She understood what I wanted from her, but she had absolutely no idea how to approach it. So I kept trying to coax it out of her through a chain of questions - kind of like pulling teeth. It wasn't ideal, but in the end, we managed to get there somehow (laughs). Maybe some of it was guessing, but we reached a result. I've realized how important it is to link questions well and let them build a dynamic.(PT 6, T1)*
3. *I noticed that he reacted negatively to some suggestions, and that made me realize how crucial it is to discuss things together and let him have the final say - so he can draw the conclusion himself. (PT 9, T1)*
4. *After making some suggestions, I found it really helpful to ask follow-up questions and engage in more discussion - especially giving him the opportunity to reject the suggestion. That often happened, since he tended to prefer his own specific approach and resisted. Rather than trying to fix that afterward, it's better to make space for it from the start so the discussion can evolve positively. (PT 3, T2)*
5. *It was important for me to always check whether he had understood me—and how he had understood me before moving on, so I could adapt accordingly. (PT 12, T2)*
6. *At times, it felt like a conversation between two language learners talking about language learning on a meta-level. I always tried to make sure we moved a step further toward metacognition. But I guess that's just learning by doing - it comes with time. (PT 11, T2)*

FIGURE 6
Examples of reflections on process-related adaptations.

Strategies such as think-aloud techniques are also employed to stimulate self-talk and make internal processes visible, encouraging learners to summarize key points and providing a foundation for deeper counseling interventions, adaptive adjustments, and the management of interactional transitions and transformative learning processes. Fine-tuning (Morek and Heller, 2020) and recipient-design are also reflected, including reducing complexity, aligning in the language use with learner, segmenting the problem domain into manageable parts, and initiating inductive, co-exploratory, and collaborative approaches, all aimed at fostering transition toward more co-adaptation. In some cases (Example 6), PTs reflect on practices of shifting their role to that of a learner in order to establish epistemic and interactive symmetry and a shared epistemical position, using this to scaffold meta-level processes. There is also a tendency to reflect on different approaches tailored to the specific transitional dynamics of various learning domains. Building on these general insights, the following section presents the second part of the case analysis, illustrating micro-reflexive dynamics observed across three sessions.

5.2 Evolving transitive reflexivity in self-perceived adaptivity: a case-based illustration

The analysis of the reflexive dynamics across three sessions indicates PTs growing adaptive process-orientation (see Figure 7).

In the initial team meeting, the PT's reflections on adaptive actions emerged firstly as a response to prior negative experiences with L2 learners, stemming from the perceived inadequacy of her earlier non-adaptive behavior, attributing challenges to intercultural differences and insufficient empathic attunement. This self-recognition forms the basis for PTs' adaptive orientation, highlighting the importance of heightened empathy, a deeper understanding of learners' perspectives, and a shift toward more learner-centered practices. This is further reflected in her empathetic cognition aimed at fostering emotional regulation, stabilizing learners' self-concept,

and providing motivational support, albeit with an inherent risk of over-accommodation. The PT's overarching adaptive logic is than elaborated also in the following sequence, with a specific reflexive focus on the practice of offering recommendations. Here, the PT displays a high interactive awareness regarding her preferred advisory practices, intentionally avoiding a directive approach when delivering recommendations, as well as an understanding that this approach may conflict with learner expectations. The PT reflects on her learner-centered, adaptively motivated strategy aimed at enhancing learner engagement through questioning rather than direct suggestions. Despite this adaptive intent, she manifests a non-adaptive orientation by rigidly adhering to this strategy to stimulate learner dynamics, leading to a fundamental tension within her advisory practice, thereby building the trigger for the next adaptive reflection. Reflecting on initial implementation challenges in balancing the complex interplay between learner-orientation and persistence to a specific action, the PT demonstrates flexibility in adapting her approach to local contingencies. However, the overarching strategy remains consistent, with modifications limited to a explicitness and directivity when engaging the learner, increased openness to optional solutions, and a shift in focus from solution to problem perception. Instead of using technical terms and elaborations, the adaptive strategy is presented illustratively, with the aim of reviving the experiential mode and connecting related strategies across similar contexts. The PT further reflects on emerging challenges in sequencing adaptive actions, noting a perceived loss of transitive control and difficulties maintaining goal orientation and alignment with the learning process. These challenges are compounded by uncertainties in assessing the learner's uptake, overall outcomes, and the effectiveness of the advisory approach, indicating that adaptive orientation is contingent on context-specific evaluations as well as the learner's manifest co-adaptivity. PT shows a lack of sensitivity to exploring the learners' perspective and a tendency to overgeneralize, indicating a routinized perception and compensatory mindset, which hinders further adaptivity by favoring quick explanations that limits deeper exploration (cf. *is not bad, very reflective interaction, take something from this*).

Case-based analysis of reflections from the participant PT 10 across several team meetings

Reflection in the first team meeting

I really tried to handle it with a lot of empathy. Because once, I kind of put my foot in my mouth – I may not have responded very sensitively in an intercultural context. So this time, I really focused on what's important for learners emotional relaxation and self-confidence, how I can help her strengthen and motivate herself. Yes, exactly. Then I also have the problem that I don't want to keep giving tips all the time. And when I ask, 'What else could we do?' and she simply says something like, 'No, I think it's fine as it is,' I try to focus more on how else can you learn; what problems are you facing? But often, it tends to turn into more general conversations about language learning, which isn't bad either, because it's very reflective interaction, and I appreciate that she can take something away from these conversations, but I am not sure about the uptake.

Reflection in the second team meeting

She is very set in her own learning methods. So, I really tried to adapt to her, but I believe she has already found a good way of learning languages, and my intervention was very difficult to adapt. In our conversations, we ended up focusing more on expanding the possibilities in language learning and her good strategies. There were also moments in the conversation where I tried to guide her toward a different perspective, suggesting that she could try something else. I kept asking questions to encourage her to reflect more deeply on her strategy, the processes, and the results, and how effective she sees it. I would then follow up with, 'Don't you think there might be other ways or alternatives to make it more effective?' She holds on to her method pretty strongly, but I tried again, this time using my own experience to share and subtly make suggestions, hoping to spark the discussion on a different level.

Reflection in the fourth team meeting

In preparing the task, I consistently tried to engage with the learner's cognitive processes. For example, I asked her how she would solve the task, why she marked certain words, or encouraged her to 'think aloud' so I could gain insight into her reasoning, and then I could follow up with further questions to deepen the reflection. Even after she provided answers to the task, we tried to analyze them together. I initiated the process by inviting her to reflect on her own answer first, then I explained what I had observed and how I would act in that situation, This led to a discussion and joint analysis. We worked together to find a more optimal solution. However, I always prioritized the learner's ideas and suggestions, emphasizing her statements as crucial for finding the solution and encouraging her to derive the main point or conclusion herself.

FIGURE 7
Example of a novice counselor's reflective activity over several team meetings.

In the second team meeting, the reflection on adaptive actions is triggered by the learner's (non)adaptability, preferences, and routines, alongside the PTs' own co-adaptive efforts to engage in a learner-centered manner, without undermining the PT's self-efficacy. Learning routines are recognized without evaluation, and elaborated in a learner-oriented, empathic way. Rather than seeking to transform these routines, the PT aims to broaden and diversify perspectives, enhance flexibility, and cultivate awareness, thereby fostering deeper meta-reflective activity that supports self-regulation. Her stance toward the process shifts from an initially one-dimensional, self-focused, corrective to a more co-constructive understanding of the action space. Co-adaptivity emerges as a guiding principle, reflected in adaptation to the learner's general orientations, local contingencies and in the strategic use of questioning and prompting to support reflexive engagement and interactional transitions. Compared to earlier practice, several changes indicate increasingly adaptive transitive-functionally oriented engagement. This is evident in the greater variability of questioning and the strategic use of awareness-raising questions aimed at fostering deeper reflexive engagement with the learner's strategies, outcomes, and perceived effectiveness. These questions are reflected as pre-moves and anchors, laying the groundwork for adaptive actions, grounded in flexible expansions through follow-ups that generate more complex interactional

sequences. This approach is enriched by functionally integrating practices such as drawing on personal experience, employing self-disclosures with subtle implicit suggestions, and, notably, broadening the discussion through multiperspectivity and joint reasoning. These developments indicate that the PT pursues more multidimensional advisory goals, demonstrating awareness and deploying increasingly complex, flexible practices that are adaptively combined while remaining responsive and confident amid local contingencies and coherent general goal-orientation. Reflection now centers on the learner and her co-adaptivity, fostering a multidimensional reflexivity in which adaptive actions are no longer described as isolated or fragmented regulative, reactive responses but as integrated components within complex interactional sequences, offering multiple alternative courses of action with the overarching aim of guiding the learner toward greater co-adaptivity. A key advancement is the awareness of adaptive, supportive bridging or pre-grounding actions that create an empathic interface, preparing transitional points and enabling more effective co-adaptivity for both.

In the final meeting, reflection on adaptation expands to encompass broader dimensions—extending into planning phases, diverse action positions, and the monitoring of co-adaptivity within complex action sequences. The focus shifts toward the learner's cognitive dimensions, reasoning processes, and learning transitions,

revealing deeper, multidimensional, transitive, functional, and co-adaptive layers of reflection that connect distinct advisory phases and actions. Adaptivity is not conceptualized in terms of self- or other-regulation, but as a fundamental principle of jointly co-constructing action and is deeply woven into the very structure of professional action and situated reasoning. It is embedded within the ongoing architecture of dynamic decision-making, highlighting it as foundational design feature of complex actions rather than as a derivative regulatory mechanism. Transitive reflexivity is oriented toward the learner's co-adaptive behavior while prioritizing the learner's epistemic and agentive advancement in central decision points. Reflection begins with pre-grounding that facilitate adaptive decision-making—through pre-actional engagement with the learner's perspective and processes—and connects to key discourse moments where the learner's cognitive and interactional transitions can be monitored and guided within the flow of action. Adaptive action unfolds through the initial pre-grounding elicitation of the learner's perspective and the stimulation of "thinking aloud" to access the learner's reasoning during problem-solving, thereby fostering Ls' agency and epistemic position. This enables PT to follow adaptively with supportive and steering questions to deepen reflective engagement. Collaborative activities, such as joint analyses and from multiple perspectives, further foster collective reasoning and joint problem-solving, thereby prioritizing the learner's ideas while interjecting her own professional reasoning strategically. The reflection is characterized by its process orientation and co-adaptive focus, highlighting continuous monitoring of discourse transitions. When shaping transformative learning through responsive actions, PT shows again a flexibility in combing different questioning and follow-up actions, and the adaptive alignment with the learner's position across different phases—whether in knowledge activation, structuring, or the derivation of rules and conclusions. Adaptivity here is not tied to singular practices or forms of self- or other-regulation but emerges as a core principle embedded in the deeper design of professional action, situated reasoning, and reflection-in-action, extending across meta-reflexive levels. Although the reflection on adaptive practices becomes more complex—encompassing multiple dimensions, integrating pre-, in-, and post-action reflection, and combining different perspectives—it remains largely descriptive and factual, elaborated generally in a learner-oriented manner rather than through concrete, situation-specific analysis, which could support the development of new approaches and adaptive practices.

6 Discussion

Drawing on reflections in group meetings accompanying the counseling engagements of prospective GFL teachers within a service-learning context, this study provides a content analysis of two aspects of transitive reflexivity: the novices' perception of challenges and self-perceived adaptive actions. The analysis provides general insights into multidimensional self-perceptions (Figure 8) while tracing their development across the initial and final phases of the counseling and reflection cycle. This is further complemented by a case-based analysis that reveals finer-grained micro-dynamics of reflective processes (Figure 9). The analysis addresses the concept of transitive reflexivity on three levels: as transitional move in reflexivity from problem noticing to adaptive actions; in terms of how both problem noticing

and self-perception on adaptive actions at the beginning of processes evolves toward the end (domain specific reflexive transitions); in terms of how transitive orientation emerges through the process understanding of one's own actions in an transitive sense as adaptively guiding discursive and learning-process-related dimensions. The service-learning context, with its emphasis on explorative self-adaptive practice, has proven to be a particularly rich environment for cultivating novices' self-regulation and the development of an adaptive mindset.

The challenges are identified in three key domains (Figure 8): tensions between external and self-imposed expectations in role management; challenges related to understanding and managing learning dynamics; interactional challenges.

While the first two challenging domains stabilize over time, indicating growing agency self-efficacy, flexible role-awareness and empathic understanding of the learner's perspectives, interactional challenges—especially regarding reactivity and responsivity in follow-up practices and dealing with contingences—increase, emphasizing the novices' growing reflective focus on transitive, process-oriented, adaptive dimensions of experience, shifting from initially general role-, context-, self- and learner-centered challenges toward those related to co-adaptive engagement, transitional challenges and specific interactional practices. Reflections at the outset primarily concern general, static, framework-related aspects at the contextual and interactive macro-level, identified gaps, antinomies, role-transition related issues and general features of interactive practices. In the final reflection novices engage with process-related challenges, deepening the focus, shifting to the level of micro-practices and adaptivity to contingencies, with increasingly process-oriented mindset related to responsivity and supporting learning transitioning, their multidimensional character, and the systematic connections between different processes and related to the resistances in the process of redesigning learning approaches. Their perceptual change indicates an increasing awareness of their actions as intermediate, bridging, or transitional steps that support, guide, shape and deepen the constantly changing learning process—activating learners' and facilitating movement toward greater co-adaptation. The findings underscore the importance of systematically fostering multidimensional reflexivity on transitional challenges, supporting both the noticing and perception of problems and their transformation into a reflective focus, helping to reduce tensions between multiple reflexive triggers and thereby grounding a starting point for reflection on adaptive actions. Particular attention should be given to the appraisal process, the elaboration of experiences, and the transition toward deeper analytical reflection, which here remained minimally scaffolded and showed limited authentic development.

Novices' perceived adaptations emerged similarly across three domains (Figure 8): organizational and relational adaptations, multidimensional adaptations related to the advisory processes, and learner-regulative adaptations, as actions of positive broadening and enhancement of learners' agency and epistemic re-positioning. Reflections on process-oriented adaptivity connects three sub-dimensions: interactional spaces, advisory approach and transitive-learning regulation—the latter typically emerging only once the former two have reached a stage of more advanced reflexive engagement. While initially balanced across domains, adaptive reflections gradually shift from regulative single actions, general referenced, framing and macro-level adaptations, related to

Perceived Challenges | Perceived Adaptations

Understanding & expectations ~ role & context

- Role transition loads
- Normative pressure
- Need for procedural consistency & patterns
- Epistemic tension
- Seeking validation, over-accommodation
- Systemic inter-connectedness overload

- Discursive interference
- Input expectation
- Output orientation
- Requested authority
- Emo-motivational- support
- Reflective resistance
- Autonomy resistance

self-expectations   **other-expectations**

tension

Organisational & relational adaptations

Balancing spontaneity & planning
- Multidimensional adjustments in planning, joint organisation
- Balancing routinization and adaptability
- Transitionally relevant moments and bridging actions

Regulating relational dimensions
- Epistemic symmetrie (self-disclosures, learner perspecitve)
- Meta-conversations - alignment in expectations, roles
- Balancing closeness, empathy & distance, functional approach
- Role plurality, but monitoring role transitions

Understanding learning dynamics

- Multidimensional nature of learning processes
- Systemic interconnectedness
- Ongoing (in-process) diagnostic
- Discrepancies between external and self-assessment
- Learner's self-expectations
- Learning adherence to routines, non-adaptability
- Transformational resistance

Learner-oriented adaptations

Positive broadening
- Supporting positive self-image, emotional regulation
- Empathic responsive interaction

Fostering agency
- Reflection on alternative actions and flexibility
- Supporting next-step planing & focus on implementation
- Self-analytical insight / inner talk
- Summarizing, concluding, abstracting key points

Interactional challenges

- Trust-building
- Emot. responsiveness
- Balancing dominance, epistemic asymmetry
- Shifts in interactional control / agency
- Addressing learner's expectations

- Limited repertoire of various prompts/elicitation
- Multi-dimensional reflection on question design: focus, direction, progressivity, transitions, alignment, complexity, interconnections
- Functional antinonomies

Interactional framework   **Activation / Impulses**

Discourse navigation
- Mutual understanding, intersubjective alignment
- Loss of discursive orientation - uncontrolled over-adaptation
- commitmend and adherence to predifined plan

Reactivity / follow ups
- Scripted actions, routine, limitations in adaptive action
- Handling narratives
- Process facilitation
- Pointing & focusing
- (In)directness-balance
- Design of recommendations (variability, elaboration)
- Bridging follow ups

Process-oriented adaptive actions

Opening/facilitating interactive spaces
- Working toward more co-construction and joint actions
- Coherence in question sequencing & scaffolding
- Co-adapting by orienting to learner's prefered, expected actions or negative reactions - monitoring
- Engagging in meta-reflections with joint reasoning
- Epistemically upgrading learner, reducing own dominance

Refining the core advising strategy
- Broadening the spectrum, variation of different practices
- Engaging in co-constructive, joint solution-finding
- Pre-moves, mitigations of strategies of reframing
- Balancing directivity and indirectivity
- Functionalising less typical practices (self-disclosures)
- Epistemical repositioning and fostering agency

Shaping epistemic & transformative dimensions
- "Understanding of the understanding" - intersubj. alignment
- Think-aloud techniques as pre-move
- Prompts for summarization & abstraction
- Fine-Tuning: Reducing complexity & recipiend-design
- Taking the learners' perspective - epistemic shared position to support development

FIGURE 8
Synthesis of findings 1 related to all contributions in the collective reflection space (* triangles mark aspects most prominent at the end of the reflection cycle).

organization, relational dimensions and learner positioning, to more multidimensional, micro-level, process-oriented adaptations, embedded within complex action flows. Reflections on adaptations, initially characterized by the feeling of non-adaptability, self-/other-regulative focus or feelings of over-accommodation leading to a loss of agentive orientation, indicate at the end the emergence of a more flexible concept of adaptivity in the sense of co-adaptivity in joint actions. An increasing transitive orientation is evident: On the interactive level, this involves increased reflections on monitoring role transitions, transitionally relevant discursive moments, process-preparatory, pre-grounding and bridging actions, and refining the core advisory strategy toward greater co-constructivity and co-adaptivity, the balancing of routinization with flexibility, interactive empathy and functional distance, as well as flexible epistemic and agentive positioning. On the level of learning-transition, it includes practices, such as regulative meaning-making/understanding-checks,

pre-moves to understand the learner's perspective, and initiating follow-up-actions of abstracting, summarization, to monitor the integration of knowledge into the broader learning system. A growing awareness of the transformative-transitive nature of both learning and advisory actions fosters a reconfiguration of professional self-understanding in an adaptive-transitive sense.

The comparison of perceptions of challenges and adaptive action points to some transmission losses in transitive reasoning. This results, on the one hand, from the unstructured handling of multiple and multidimensional reflection triggers and their specific interfaces during problem noticing, as well as the absence of a distinct problem analysis phase, and the lack of a systematic derivation of solutions, but also due to the context of open collective reflection space, without directive scaffolding and dynamically merging different triggers to shared problem-orientations and concepts, a process that requires further investigation. On the other hand, it indicates a simplification and transformation of reasoning and shifting the reflection focus when repositioning of agency, creative solution-finding and addressing multiple problems simultaneously, leading to forms of more general approaches, circular reflexivity, umbrella concepts, quasi-related solutions or limitations of innovation thinking in adaptive resource-based sense. This is particularly evident in relation to interactive challenges in follow-up practices, which, instead of being addressed directly, are reflexively integrated into other contexts, yet remain underexplored or unresolved. As a multidimensional transitive phenomenon, this demands a different reflexive dynamic than phenomena situated on other interactive levels, requiring scaffolding through more systematic problem analysis and support in interrelating different levels of adaptivity and transitioning—a clear desideratum for teacher education and further research. Instead of expanding their adaptive practices with multiple alternatives, the expectation of a particular action is initially preferred by novices, but changes over the course of the action cycle. This can be practically reinforced by the concept of multiple alternative adaptive actions, deliberately chosen to focus on multi-dimensionality, optionality, anchoring in existing structures, fostering agentivity, creative variability, and transitive relationality, all of which presuppose contextual analysis, instead of terms such as "measures or solutions," as is often the case in reflection contexts, which often imply a one-dimensional outcome, create pressure to produce something new, and thereby constrain adaptive and innovative capacities.

Another potential area of scaffolding concerns the elaboration and justification of adaptive action and also the interrelation of different adaptive processes and dimensions, which tend to be underrepresented in novice contexts and often manifests in the form of self-imperatives. The dynamics of multi-dimensional adaptivity warrant closer examination, from both reflective and interactional perspectives, to understand how general adaptive orientations and domain-specific adaptations interrelate and shape an adaptive self-regulative mechanism with specific patterns. It would be important to compare the novices' self-perceptions and adaptive orientations in reflection with interactional analytical insights, in order to explore the interfaces between subjective beliefs and practices, how specific interactive experiences contribute to adaptive outcomes, and to foster their more deliberate and coherent alignment in practice. The multidimensional

activation and integration of different knowledge domains in the reasoning on adaptive actions should also be promoted in an integrative sense, to gain clarity on how various knowledge domains are interconnected, when developing multiple, interconnected adaptive actions, and how this relates concretely to situated practices, as well as to support reasoning and elaborations that underpin these adaptive decisions, an area that warrants further analysis and practical training. Another important aspect is that reflective activity does not follow a linear pattern but unfolds dynamically, where significant leaps in reflection often occur only after certain foundational processes have been established or reflexive collisions resolved, due to the specific dynamics in reflective interfaces, action-reflection-dynamics or relations between individual and collective reflection processes, which also need further qualitative exploration. As this study primarily provided a holistic insight into the collective reflection space, it remains particularly important to examine how individual adaptivity concepts, domains, or strategies manifest and interrelate, and to investigate their developmental dynamics, comparing different cases as well as the interactional dimensions in collaborative reasoning that influence the emergence of transitive reflexivity. This aspect is partially addressed through the case study, providing initial insights into these individual patterns of reasoning.

The case-based analysis (Figure 9) reveals firstly multidimensional shifts in perception of challenges—moving away from deficit-orientation, affective attachment with negative self-evaluation and limiting self-expectations, epistemic and agentive tension with evaluative, prescriptive stance, toward confident epistemic, agentive and adaptive positioning with transitional self-understanding. The nature of the perceived problem evolves from self-centeredness on role understanding, standards of appropriateness and in-moment-reactivity challenge (*reflexive self-confrontation*), through challenges due to learner's non-adaptivity (*reflexive dislocation*), toward the co-adaptivity challenge, locating the problem within regulation of multiple adaptive actions, levels, or transitions (*reflexive co-adaptive orientation*). This is accompanied by changes in the quality of reflection, focus and problem approach, including a stronger in-process orientation, increasing concreteness and deeper focus, multidimensionality, relation to action-flows and higher-quality reflection, evolving from unstructured, narrative approaches through descriptive reflection with general, one-dimensional appraisal and solution-oriented expansions, toward reframed problem sequences where resource- and solution-oriented reasoning emerges already during problem noticing. Reflection indicates the growing use of self-/other-monitoring strategies, the consideration of multiple alternatives in reflection-in-action, and pre-grounding for adaptive decision-making. While the initial reflections are self-focused, the final ones are more team-oriented and address collaboratively relevant concepts and suggestions for the group.

Accordingly, shifts in reflections on adaptivity become evident: triggers of adaptive action evolve from general adaptive orientations, framed as taking the perspective of the learner and displaying empathic orientation, based on previous negative experiences with own or the learner's non-adaptivity, over difficulties during attempts to act adaptively toward situated adaptive decision-making within ongoing action flows. Similarly,

	Perceived Challenges	Perceived Adaptations
Reflection 1	**Epistemic**: High uncertainty; epistemic tension; noticing gaps; **Emotional**: negative epistemic emotions; feelings of being overwhelmed; pressure to respond; **Interactive Dimension**: General interactive self-awareness; Experience of limited control/agency; Negative self-awareness; Process awareness (transition, shaping, guidance); Awareness of the necessity to adapt; **Deficit-oriented framing** of the situation and problem-centered perspective, overgeneralization from singular experiences **Problem Perception**: Lack of clear focus; multiple deficiencies and parallel challenges; in-the-moment-reaction; **Problem Character**: Self-referential; role understanding; normative, evaluative, and prescriptive stance; uncritical transfer of theoretical expectations, internalized standards of appropriateness with idealized notions of proper conduct; **Problem analysis**: narrative reflexivity rather than structured reasoning; perspective on self and self-perception in the situation; vague references, shallow processing, stream-of-consciousness; **Learner- Orientation**: minimal references (general relevance for learning process)	**Trigger**: (1) negative prior experiences; (2) awareness of one's preferred professional practice and the collision with learner expectations; negative experience of learners' non-co-adaptivity; **Character of adaptive action**: (1) general, self- and other-regulatory; guided by a self-imperative to adapt, demonstrate empathy, and adopt the learner's perspective; (2) variation within the same range of professional actions, achieved through changes in the explicitness of addressing, focus on optionality/alternatives, shifting of focus— resulting in modifications to discourse progression and the advisory goal; **Goal**: (1) emotional and motivational; (2) implementation of a specific practice perceived as appropriate for fostering learning, yet without consideration of learners' individual perspective; **Reflection quality**: Situated problem description, awareness of possible underlying causes and of one's own adaptive strategies, recognition of consequences of adaptive action (loss of control coordinating different "waves" of adaptive actions; uncertainty regarding uptake)
Reflection 2	**Epistemic & emotional**: stable, without tensions, relaxed, normalizing challenges - transitional self-understanding; **Interactive**: awareness of own intentions and practices; deliberate agentive restraint; process-oriented engagement; co-adaptive stance; **Lerner Orientation**: foregrounded (learner as the center of the process) **Problem perception/quality**: process-oriented, specific, focused, related to learner activation and fostering co-adaptation; **Problem analysis**: problem description is expanded with self-focused one-dimensional appraisal (self-related attribution with role transfer, routine), but without specific situation analysis; **Solution-oriented sequence extending problem noticing**: concrete, action-oriented strategies guided by self-imperatives concerning general interactive procedures; incorporate additional considerations to consolidate position; coordination across different levels of adaptation - related to agentive stance, use of practices and co-adaptive orientation;	**Trigger**: difficulties in adaptive attempts; non-adaptivity of the learner; **Character of adaptive action**: Not a regulative move, but a jointly co-constructed action; includes multiple alternative courses of action; conceptualized multidimensionally - as increased variability and sequential complexity of practices, strategy of employing pre-moves and bridging actions, connecting questions/follow-ups, functional integration of additional practices, or transforming the discourse to joint reasoning; persistent adaptive and exploratory orientation. **Goal**: Multidimensionally supporting interactional and learning transitions; guiding toward greater co-adaptivity and meta-reflexivity; **Reflection quality**: Non-evaluative, descriptive, with flexible shifts in perspective (learner, self, shared perspective, situation, process vs. outcome); reflection-in-action, thereby alternating direct and indirect speech in an argumentative way; includes appraisals providing rationale that signal interpretative orientation to the learner's perspective;
Reflection 3	**Epistemic & emotional**: confident epistemic positioning, tolerance for ambiguity and repair of epistemic uncertainty, emotional self-regulation; **Interactive**: transitive, co-adaptive and agentive orientation, self- and other monitoring; includes addressing the team with collaboratively relevant, generalizable tips. **Lerner Orientation**: focused on promoting co-adaptivity, learner-centered engagement **Problem perception/quality**: Recognition of the need to adapt in challenging situations; multiple potential adaptive actions that can guide discourse transitions in various directions; mitigated problem framing by "unsure / I need to…" and self-imperatives; **Solution-orientation reframing problem-noticing**: Formulation of self-recommendations and situated reasoning, reframing problem awareness into action possibilities as resources for resolving the issue; **Problem analysis**: Focused, situated, functionally solution-oriented; as situated reasoning during reflection-in-action, with decision points embedded in the action flow, reflecting deeper meta-reflective processing; includes both abstract formulations and concrete expressions in simulated inner speech and general analytic stance (monitoring);	**Trigger**: no specific, more a fundamental principle of jointly co-constructing action, embedded within the ongoing architecture of dynamic decision-making in action flows; **Character of adaptive action**: extended into planning phases that facilitate adaptive decision-making, in diverse action positions, and related to the monitoring of co-adaptivity within complex action sequences, focusing on key discourse transitional points; strategies supporting adaptions with pre-moves, (elicitation or simulation of the learner's perspective) or stimulation of "thinking aloud" to access the learner's reasoning; enabling adaptively to follow-up or organize joint activities and flexibility in combing different questioning and follow-up actions. Different positions of adaptive reasoning, relating to knowledge activation, learner structuring, or the derivation of rules and conclusions; **Goal**: learner's cognitive dimensions, reasoning processes, and learning transitions, revealing deeper, multidimensional, transitive goals that connect distinct advisory phases and actions; **Reflection quality**: process- and joint-oriented with co-adaptive focus, integrating reflection pre-, in-, and on-action, emphasizing monitoring of transitions; multidimensional reflection across activities and learning processes; elaborating own decisions grounded in learner-centeredness, without affecting agentive positioning; structured within the action flow, with co-adaptive and multiperspective representation;

FIGURE 9
Synthesis of findings 2 focusing on a case analysis.

the goal of adaptive actions shifts: initially emotional, motivation or grounded to support the implementation of practices perceived as functional, goals of adaptive actions gradually move toward addressing multiple dimensions of the learning process, transitioning to more deeply anchored, multidimensional, managing complex advisory actions and transitions. In the first reflection, guided by the self-imperative to be adaptive and demonstrate learner orientation, adaptivity has a more proto and self-/other-regulative character, related to singular activities and adjustments, such as changing the focus or being more direct or open for alternatives, while conceptually remaining within the same scope of action—giving the appearance of adaptivity. In the

second reflection, this transforms to more process-oriented, complex practices, interconnected across different positions to achieve co-adaptivity, and is characterized by a persistent exploratory adaptive orientation, multiple alternative actions, indicating adaptations across different levels. This includes the diversification and the use of pre-moves, bridging actions, interlinking between different practices, leveraging secondary practices for advisory purposes and expanding their functional potential, thereby transforming the discourse into joint reasoning and supporting co-adaptivity. In the final reflection, adaptivity is multidimensionally extended into planning phases that facilitate adaptive decision-making, occurs across different action positions, and is linked to the monitoring of co-adaptivity within complex action sequences. Beyond strategies already recognized as pre-grounding adaptive actions—such as eliciting, simulating the learner's perspective, or stimulating "thinking aloud" to access the learner's reasoning—the PT reflects on the flexibility of combining different initiating and responsive actions, indicating various dynamics of adaptive reasoning in different positions. This form of adaptivity embodies a deeper, fundamentally co-adaptive, transitive process-orientation, operating beneath the surface of interactive practices. It further reflects an integrative mindset, linking different professional knowledge domains, in which the process of monitoring adaptivity-decision-relevant moments becomes significant, enabling adaptive shifts between different action frameworks and steering of adaptations in a process-oriented way. The understanding of adaptivity shifts from a primarily regulative-corrective orientation, through the regulation of co-adaptivity, to a fundamental principle of alternative, adaptive reasoning as reflection-in-action embedded within the action flow, guided by pre-grounding moves that support adaptive practices and monitoring of different transition processes.

The comparison of the novice's transitioning from problem perception to adaptive action, points already in the first reflection, to several shifts: from deficit-based self-focused, evaluative, narrative reflection toward a relational self-positioning, with more context-sensitive integrative awareness of interrelations and consequences within the interaction and awareness of the co-adaptive dynamics; moves between epistemic orders—from a reproductive mode, embedded in normative expectations of "appropriate" conduct, toward a more dynamic relation to knowledge that oscillates between different experience, interpretations, contexts and actions; affective transformation from negative epistemic emotions to an emotionally grounded form of relational engagement, in which empathy and situational sensitivity become resources for professional action. Agency evolves from self-centered control and role insecurity to an awareness of self- and reciprocal regulation. This demonstrates a micro-movement from re-producing normative expectations toward the construction of situational appropriateness as part of a circular, dynamic system. This reflexive transition influences the problem perception in the next reflection, indicating its expansion with solution-sequences, learner-centered, process- and relationally oriented reflections, resulting in a new transitional quality for subsequent adaptive action. This transition is than characterized by a diversification and expansion of adaptive strategies, increased multidimensionality in transitivity, and a focus on co-adaptivity. These reflexive movements, as they transition toward a focus on adaptivity within

individual reflections, influence the novice's problem perception and understanding, leading to an increasing integration of adaptive elements in subsequent problem descriptions in the following reflections. This process indicates the emergence of higher-order reflexivity in follow-up reflections on adaptive action, reflecting a cyclical development toward progressively more adaptive, process-oriented reflection that engages multiple dimensions of adaptivity and multidimensional transitional reflexivity.

Given the qualitative and reconstructive-exploratory nature of this study, several key dimensions of transitive reflexivity have been identified, along with their emergence across the initial and final phases. The findings emphasize the need to support the systematic development of transitive reflexivity during early stages of teacher training, as well as the importance of more structured analyses of transitional reflexivity. However, the study's scope and limitations must also be acknowledged. These include its specific focus on the service-learning context, a limited sample size, and the group-reflection setting, which did not systematically capture individual reflection profiles or the interactional dynamics within collaborative reflective spaces. Consequently, future research should extend these findings by including additional contexts, more diverse data sources and participant groups, and longitudinal, triangulated designs. Such approaches could enable systematic correlations across different reflection interfaces and more precise integration of reflective and actional processes. It is crucial to examine more systematically the multidimensionality of transitional reflexivity, the interrelations among different adaptive dimensions, and the co-adaptive dynamics that shape reflective learning. Further research should also compare self-perceived and actual adaptive actions, analyze individual variation competences, and explore the relationship between reflected adaptivity and interactive performance. A design-based research approach, incorporating intervention studies and controlled pre–post settings, could help delineate relevant sub-competency domains and evaluate the effects of reflection-focused training on transitive competence as well as on general teaching competence and domain of adaptivity. Moreover, investigating how individuals perceive challenges, recognize resources, and derive adaptive strategies—particularly during analytical and innovative-inventive phases—through methods such as think-aloud protocols and in-depth analyses of collaborative innovation processes, would provide valuable insights into the fine-grained dynamics of adaptive professional reasoning.

7 Conclusion

This study underscores the importance of systematically integrating dimension of transitional reflexivity into the early professional development of pre-service teachers and highlights the need for its continued, systematic investigation. The analysis addressed transitive reflexivity, first, as the novices' reflective movement from recognizing and perceiving problems toward self-perceived adaptive practices; second, as a developmental process unfolding within distinct reflexive domains; and third, as an emerging transitive and adaptive self-understanding that enables self-regulation within complex and ambiguous professional dynamics. Two central aspects examined in this study—perception of challenges and adaptive actions—point to the gradual emergence of an increasingly process-oriented, enhanced reflection-in-action with adaptive mindset and transitive self-understanding. This includes enhanced process monitoring, a more flexible role-awareness, and a shift

away from a problem-centered, deficit-oriented, self-focused, evaluative and emotionally charged stance toward a solution- and resource-oriented, co-adaptive perspective that emphasizes multiple alternative actions embedded within complex advisory settings. At the core of this transformation lies an emerging conceptualization of multidimensional co-adaptation—not as an individual form of regulative adjustment, but as a dynamic, joint process that mobilizes the learner's adaptive potential. The analysis revealed positive reflective transitions—not only through a reduction in experienced challenges, the qualitative deepening of reflection, refinement of perception, and transformation and reframing of problem understanding in an adaptive, solution-oriented sense, indicating growing process awareness, context-sensitivity, multidimensionality, co-adaptive orientation, especially related to responsive follow-up practices, reflecting an increasing awareness of one's own actions as intermediate, bridging, and transitional steps that support, guide, and enrich the constantly evolving learning process. Similarly, the subjective understanding of adaptive practices, including its triggers, goals, and the characteristics of adaptive actions, as well as the reflective quality—formerly conceptualized at the macro level, self-referentially, regulative and broadly relational/organizational—becomes increasingly process-oriented, multidimensional, and focused on micro-practices that regulate the advisory process, foster co-adaptation and interactional spaces toward more joint activities. Initially focused on self-/other-regulation, involving singular adjustments and oriented toward demonstrating learner-centered responsiveness, reflections progressively evolve into situated, process-oriented, and multidimensional practices characterized by interconnected actions that foster co-adaptivity, and finally becoming a transitive, co-adaptive, and integrative process, embodying a reflective-in-action mindset that links multiple knowledge domains and supports deliberate adaptive decision-making across diverse action positions and transitions. This encompasses increasingly complex, multidimensional, diversified, embedded adaptive strategies and is particularly evident in sequences of actions involving preparatory steps, pre-grounding activities, monitoring, and bridging actions at key discursive positions to promote co-adaptivity. These are related to the interrelation of multiple adaptive activities, facilitating engagement with alternative transitive trajectories and guiding the adaptive orientation in (interactional and learning specific) transitional relevant positions.

Given that this study was shaped by its specific service learning context, the longitudinal perspective within the advisory cycle and the focus on novices, which facilitated unique dynamics of reflexivity and adaptivity, it is important for future research to investigate how transitional reflexivity unfolds over varying durations and across diverse contexts, but also in comparison with experienced advisors and teachers. Investigating how transitional reflexivity interacts with other areas of professional competence may provide deeper insights into trajectories of professional growth and the long-term impact of early experiences with transition-focused reflection. Furthermore, it is essential to systematically refine the conceptualization of transitive reflexivity as one subdimension of self-transformative reflexivity to develop scaffolding approaches for teacher education, tailored to different professional action contexts, and specifically applied to advisory practice for self-monitoring and regulation of multidimensional adaptive and trajectories. This further highlights the need for mentoring structures and institutional frameworks that foster safe experimentation, collaborative meaning-making, and sustained engagement with transitive reflective practice in dynamic, applied learning environments, while also promoting the development of transitive reflexivity among FL learners.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by University Hildesheim and University Marburg. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

Funding

Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declared that Generative AI was not used in the creation of this manuscript.

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References

Aeppli, J., and Lötscher, H. (2016). EDAMA—a framework for reflection. *BzL-Contrib. Teach. Educ.* 34, 78–97. doi: 10.36950/bzl.34.1.2016.9540

Aldrup, K., Carstensen, B., and Klusmann, U. (2023). The role of teachers' emotion regulation in teaching effectiveness: a systematic review integrating four lines of research. *Educ. Psychol.* 59, 89–110. doi: 10.1080/00461520.2023.2282446

Anderka, A., König, B., and Drechsel, B. (2023). Learning support as mentored service-learning. A theory-practice seminar. *J. Teach. Educ.* 23, 106–115. doi: 10.35468/jlb-02-2023-08

Archiopoli, A., and Murray, C. (2019). Deep-learning practices in the Hispanic-serving and minority-serving context. *J. Serv. Learn. High. Educ.* 9.

Arrastia-Chisholm, M. C., Torres, K. M., and Tackett, S. (2018). "Using reflection to increase self-regulation among pre-service teachers" in Fostering reflective teaching practice in pre-service education (Hershey, PA: IGI Global Scientific Publishing), 148–165.

Backhaus-Maul, H., and Jahr, D. (2021). "Service learning" in Handbook of transdisciplinary didactics (Bielefeld: Transcript Verlag), 289–299.

Beißert, H., Derkau, J., Waag, A. S., and Manfred, H. (2023). Evidence of the long-term effects of service learning: a retrospective survey. *J. Teach. Educ.* 23, 72–82. doi: 10.35468/jlb-02-2023-05

Clanton Harpine, E. (2024). Service learning in higher education: from pedagogy to practice. Cham: Springer.

Copur-Gencturk, Y., and Thacker, I. (2020). A comparison of perceived and observed learning from professional development: relationships among self-reports, direct assessments, and teacher characteristics. *J. Teach. Educ.* 72, 138–151. doi: 10.1177/0022487119899101

Damons, V. M., and Dunbar-Krige, H. (2020). The use of reflection in a service-learning project in a post-graduate programme. *J. Serv. Learn. High. Educ.* 11, 21–40.

Deppermann, A. (2018). "Changes in turn-design over interactional histories: the case of instructions in driving school lessons" in Time in embodied interaction: Synchronicity and Sequentiality of multimodal resources. eds. A. Deppermann and J. Streeck (Amsterdam: John Benjamins), 293–324.

Deppermann, A., and Schmidt, A. (2021). How shared meanings and uses emerge over an interactional history: Wabi Sabi in a series of Theater rehearsals. *Res. Lang. Soc. Interact.* 54, 203–224. doi: 10.1080/08351813.2021.1899714

Derkau, J., and Gerholz, K. H. (2023). Service-learning in teacher training programs: Which learning environments are suitable? *J. Teach. Educ.* 23, 16–35. doi: 10.35468/jlb-02-2023-01

Dewey, J. (2011). Democracy and education: an introduction to the philosophy of education. New York, NY: Macmillan.

Dopheide, F. (2020). "Experiencing ambivalence: a qualitative study of students' competence development in service-learning projects—the cases of 'Balu und Du' and 'Offenes Ohr'" in Dissertation (Paderborn: University of Paderborn).

Drechsel, B., Sauer, D., Paetsch, J., Fricke, J., and Wolstein, J. (2020). "Enhancing pre-service teachers' counseling competence in educational studies through evidence-based training—the bamberg peer counseling program" in Evidence-based approaches in teacher education (Cham: Springer), 193–214.

Esslinger-Hinz, I., and Denner, L. (2019). The career-oriented learning orientation of teacher trainees. *J. Educ.* 65, 748–768. doi: 10.3262/ZP1905748

Fairbanks, C. M., Duffy, G. G., Faircloth, B. S., He, Y., Levin, B., Rohr, J., et al. (2009). Beyond knowledge: exploring why some teachers are more thoughtfully adaptive than others. *J. Teach. Educ.* 61, 161–171. doi: 10.1177/0022487109347874

Fredagsvik, M. S. (2021). The challenge of supporting creativity in problem-solving projects in science: a study of teachers' conversational practices with students. *Res. Sci. Technol. Educ.* 41, 289–305. doi: 10.1080/02635143.2021.1898359

García, E., Arias, M. B., Harris Murri, N. J., and Serna, C. (2010). Developing responsive teachers: a challenge for a demographic reality. *J. Teach. Educ.* 61, 132–142. doi: 10.1177/0022487109347878

Harkins, D., Kozak, K., and Ray, S. (2018). Service-learning: a case study of student outcomes. *J. Serv. Learn. High. Educ.* 8.

Hußner, I., Lazarides, R., Symes, W., Richter, E., and Westphal, A. (2023). Reflect on your teaching experience: systematic reflection of teaching behaviour and changes in student teachers' self-efficacy for reflection. *J. Educ. Sci.* 26, 1301–1320. doi: 10.1007/s11618-023-01190-8

Jehle, M., and McLean, P. (2020). "Video-based teaching formats to foster reflective classroom perception in social sciences and history teacher education" in Videography in teacher education (Hildesheim: Hildesheim University Press), 198–208.

Johannsen, U., and Peuker, B. (2021). Service learning in teacher training through participatory concept development in the area of consumer literacy. *Household Educ. Res.* 10, 46–63. doi: 10.3224/hibifo.v10i4.04

Kato, S., and Mynard, J. (2016). Reflective dialogue: advising in language learning. New York: Routledge.

Kim, K., and Angouri, J. (2019). 'We don't need to abide by that!': negotiating professional roles in problem-solving talk at work. *Discourse Commun.* 13, 172–191. doi: 10.1177/175048131881762

Kleppin, K., and Spänkuch, E. (2014a). Advising/coaching foreign language learners—what does that have to do with teaching? A reflection. *Teach. Learn. Foreign Lang.* 43, 94–108.

Kleppin, K., and Spänkuch, E. (2014b). "Concepts and terms in the field of language learning counselling—clearing up the terminological jungle" in Language learning consulting—language learning coaching (Frankfurt am Main: Peter Lang), 33–50.

Kozakiewicz, N., and Schütz Lenggenhager, C. (2021). Curricular integration of service learning as a university development task. *Household Educ. Res.* 10, 30–45. doi: 10.3224/hibifo.v10i4.03

Kücholl, D., Lazarides, R., and Westphal, A. (2020). Self-efficacy expectations in student counseling: What role do individual entry requirements of prospective teachers play? *BzL-Contrib. Teach. Educ.* 38, 150–166. doi: 10.36950/bzl.38.2020.9369

LaPalme, M., Luo, P., Cipriano, C., and Brackett, M. (2022). Imposter syndrome among pre-service educators and the importance of emotion regulation. *Front. Psychol.* 13:838575. doi: 10.3389/fpsyg.2022.838575

Lazovic, M. (2022). Conceptual extensions in reflective action within the mode of inquiry-based learning. Insights into transformative learning processes using the seminar "Educational Research for German as a Foreign Language" as an example. *Acad. J. Mod. Philol.* 16, 157–170. doi: 10.34616/ajmp.2022.16.13

Lazovic, M. (2025a). Empathy in language learning counseling sessions—discursive, reflective, adaptive. *Foreign Lang. Teach. Learn.* 54, 39–56. doi: 10.24053/FLuL-2025-0004

Lazovic, M. (2025b). Emotionally responsive regulatory practices in FLL counseling and their evolving dynamics in interaction. *Front. Commun.* 10:1657464. doi: 10.3389/fcomm.2025.1657464

Lazovic, M. (2025c). Solution development in peer case consultation: interaction-analytical perspectives. *Glottodidactica* 52, 49–78. doi: 10.14746/gl.2025.52.2.3

Lazovic, M. (2026a). Self-Disclosures in foreign language learning counselling: changes over time in novices' practices. 28:1.

Lazovic, M. (2026b). Simulierte innere Rede als Ressource in der Sprachlernberatung für DaF. Interaktionsanalytische Einblicke in die Dynamiken funktionaler Adaptation. [Simulated inner speech as a resource in language learning counselling for German as a foreign language. Interaction-analytical insights into the dynamics of functional adaptation.]. *Linguistische Berichte*.

Lehker, C., and Saunders, C. (2022). "Evaluating (self-)counseling competencies—reflections on reflective practice, multifaceted competence, and an instrument for counselors" in Literacy learning counseling: counseling in basic education work. Foundations and practical examples: writings on general higher education didactics (Münster: WTM-Verlag), 489–490.

Li, L. (2022). "Learning to teach: a discursive construction of pre-service EFL teachers' identities" in Theory and practice in second language teacher identity (Cham: Springer), 105–120.

Liyuan, E., Pyhältö, K., Sullanmaa, J., Pietarinen, J., Soini, T., and Toom, A. (2024). Early career teachers' sense of professional agency in the classroom and associations with their perception of transformational leadership vision and school size. *J. Teach. Educ.* 76, 29–41. doi: 10.1177/00224871241248424

Macknish, C. J. (2023). Reflective practice in TESOL service-learning, reflective practice in language education. Sheffield: Equinox Publishing.

Mayring, P. (2022). Qualitative Inhaltsanalyse: Grundlagen und Techniken. (qualitative content analysis: Fundamentals and techniques), vol. 13. Beltz: überarbeitete Auflage.

Mezirow, J. (1991). Transformative dimensions of adult learning. Hoboken, NJ: Jossey-Bass.

Morek, M., and Heller, V. (2020). "Individualized tailoring of discursive demands and support. Fine-tuning of teacher actions that promote discourse acquisition in classroom interaction" in Discourse acquisition in family, peer group and classroom (Berlin: De Gruyter), 381–424.

Muehlbacher, F., Hagenauer, G., and Keller, M. (2022). Teachers' emotion regulation in the team-taught classroom: insights into teachers' perspectives on how to regulate and communicate emotions with regard to the team teaching partner. *Front. Educ.* 7:787224. doi: 10.3389/feduc.2022.787224

Nguyen, H. T. (2008). Sequence organization as local and longitudinal achievement. *Text and Talk* 28, 501–528. doi: 10.1515/TEXT.2008.025

Nguyen, H. T. (2011). "Achieving recipient design longitudinally: evidence from a pharmacy intern in patient consultations" in L2 interactional competence and development. eds. J. K. Hall, J. Hellermann and S. Pekarek Doehler (Bristol: Multilingual Matters), 173–205.

Nguyen, H. T. (2012). Developing interactional competence: A conversation-analytic study of patient consultations in pharmacy. London: Palgrave Macmillan.

Nguyen, H. T., and Malabarba, T. (2025). Developing interactional competence at the workplace. *Learning English as a Foreign Language on the Shop Floor. New York: Routledge.* doi: 10.4324/9781003125778

Pekarek Doehler, S., and Pochon-Berger, E. (2011). "Developing 'methods' for interaction: a cross-sectional study of disagreement sequences in French L2" in L2 interactional competence and development. eds. J. K. Hall, J. Hellermann and S. Pekarek Doehler (Bristol: Multilingual Matters), 206–243.

Pekarek Doehler, S., and Pochon-Berger, E. (2019). "On the Reflexive Relation Between Developing L2 Interactional Competence and Evolving Social Relationships: A Longitudinal Study of Word-Searches in the 'Wild'. In: J. Hellermann, S.W. Eskildsen, S. Pekarek Doehler and A. Piirainen-Marsh (eds) *Conversation Analytic Research on Learning-in-Action*. Cham: Springer. doi: 10.1007/978-3-030-22165-2_3

Pekarek Doehler, S., and Balaman, U. (2021). The Routinization of grammar as a social action format: a longitudinal study of video-mediated interactions. *Res. Lang. Soc. Interact.* 54, 183–202. doi: 10.1080/08351813.2021.1899710

Reinders, H. (2016). Service learning: theoretical considerations and empirical studies on learning through engagement. Weinheim: Beltz.

Salimzadeh, R., Hall, N., and Saroyan, A. (2021). Examining academics' strategies for coping with stress and emotions: a review of research. *Front. Educ.* 6:660676. doi: 10.3389/feduc.2021.660676

Skogmyr Marian, K. (2023). The development of L2 interactional competence. A multimodal study of complaining in French interactions. New Yoork: Routledge.

Stahnke, R., and Blömeke, S. (2022). How experienced and aspiring teachers perceive teaching. *J. Teac. Educ.* 22, 76–85. doi: 10.35468/jlb-04-2022-04

Stürmer, V., Lange, S. D., and Kater-Wettstädt, L. (2023). Critical reflection in service-learning: experiences with newly immigrated children in schools. *J. Teac. Educ.* 23, 36–47. doi: 10.35468/jlb-02-2023-02

Tietze, K. O. (2010). Impact processes and personal effects of peer consultation. Theoretical designs and empirical research. Wiesbaden: VS Verlag für Sozialwissenschaften.

Toronyi, A. (2020). Preservice teachers working with English language learners: a meta-synthesis of service- learning as an effective pedagogical tool. *J. Serv. Learn. High. Educ.* 11, 41–63.

Trempler, K., and Hartmann, U. (2020). How do prospective teachers engage with pedagogical situations? An analysis of argumentation structures and information used. *J. Educ. Sci.* 23, 1053–1077. doi: 10.1007/s11618-020-00970-w

Wagenaar, S. (2024). Peer consultation in social work. Stuttgart: W. Kohlhammer GmbH.

Walsh, S. (2022). "SETTVEO: evidence-based reflective practice and professional development" in Video enhanced observation for language teaching. Reflection and professional development (London: Bloomsbury Publishing), 167–180.

Weber, et al. (2020). Fördert eine videobasierte intervention im Praktikum die professionelle Wahrnehmung von Klassenführung? – Eine quantitativ-inhaltsanalytische Messung von Subprozessen professioneller Wahrnehmung (does a video-based intervention during teaching practice promote professional perception of classroom management? – a quantitative content analysis measurement of sub-processes of professional perception). *Z Erziehungswiss* 23, 343–365. doi: 10.1007/s11618-020-00939-9

Wirtherle, S. (2019). "The development space of service learning: a grounded theory of engagement learning" in PhD thesis (Cologne: University of Cologne).