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Does reciprocal peer observation promote the transfer of learning to teaching practice?

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Abstract

This paper investigates whether Reciprocal Peer Observation is an effective practice for promoting Teacher Professional Development. It focuses on analysing the Improvement Goals transfer processes stemming from teachers' own educational approach, which teachers identify during Reciprocal Peer Observation. A total of 230 teachers, paired together, conducted a second classroom observation, focused on a specific Improvement Goals to assess the extent of their transfer. The findings indicate that Improvement Goals transfer to classroom practice occurs predominantly. The study analyses predictive and facilitating factors that contribute to this process. The results reveal that collaborative culture and collective agency are predictive factors for transfer. Similarly, personal factors arising from reflection and awareness of one's own practices, alongside the support of the partner, could promote the identified processes of improvement. In conclusion, Reciprocal Peer Observation can be regarded as a highly effective practice for identifying Improvement Goals and transferring them to the classroom, benefiting Teacher Professional Development.

KEYWORDS
inservice education, reciprocal peer observation, school/teacher effectiveness, teacher professional development, transfer of learning

Practitioner points

- Participation in one cycle of Reciprocal Peer Observation promotes the transference of Improvement Goals to the teaching practice and significantly contributes to Teacher Professional Development.
- School's collaborative culture and collective agency, focused on positive interdependence, are predictive factors for the successful implementation of Improvement Goals in classroom practice.
- Personal competencies—such as perceived efficacy, responsibility, and motivation—and contextual factors—such as the value of partner support and the availability of opportunities to implement Improvement Goals—act as levers for the successful Improvement Goals transference.

1 │ INTRODUCTION

One of the challenges that governments and their educational administrations face at an international level is the improvement of educational quality. A large part of educational policies is specifically aimed at achieving better learning outcomes for students and schools (Sancar et al., 2021). For this reason, it is essential that teachers have opportunities to improve their practices to promote greater student learning and increase the quality of teaching in the classroom.

There is a broad consensus that teacher learning and Teacher Professional Development (TPD) are key factors in educational quality (Escudero Muñoz et al., 2017; Qin & Liu, 2023). However, ensuring that these training actions, which involve teacher learning, contribute to TPD and arce effectively transferred into classroom practices is not an automatic process. Nor is the ability to measure it and assess its effectiveness. Concrete actions are necessary, beyond the training itself, to promote and support the transformation processes of TPD.

Although research provides multiple pieces of evidence aimed at specifying and defining the characteristics and influential factors of TPD that have contributed to improving educational practices and, consequently, student learning, a relatively unexplored area that is expanding is that of Peer Observation. According to the OECD (2019), the probability of a teacher developing transformative pedagogies increases when they can observe other classrooms and schools and participate in teacher collaboration networks. Eighty percent of teachers in OECD countries consider that the continuing education that has had the most influence on the development of their work has been that based on collaboration among peers (OECD, 2019).

TPD based on collaborative research is an approach that leads to effectiveness and has an impact on teacher self-efficacy (Ciampa & Gallagher, 2016; Rodríguez et al., 2020). From this approach, teachers are involved in the joint construction of pedagogical knowledge through dialogue and reflective practices (Rodríguez et al., 2020) as one of the main ways for teachers to improve the effectiveness of their practice (Barr et al., 2015).

Therefore, the focus of this work is to provide evidence of how Reciprocal Peer Observation (RPO), understood as a mechanism of collaborative teacher inquiry, can foster changes in classroom teaching practices, thus improving educational quality and the effectiveness of teaching and learning processes (O'Leary & Savage, 2020).

1.1 | TPD

TPD is defined as a process of personal growth, in terms of action and understanding of educational practices, that focuses on improving both personal competencies and those related to institutional improvement (Chapman et al., 2015; Escudero Muñoz et al., 2017; Shortland, 2010; Todd, 2017). This process takes place in a collaborative learning environment and using an inquiry-based approach to develop the professional knowledge that teachers need to use in their own context (Borko et al., 2010).

International research on TPD has evolved in recent decades. While at the end of the last century, the focus was on TPD as a key mechanism for improving teaching and student performance (Cohen & Hill, 2000; Darling-Hammond & McLaughlin, 2011; Elmore & Burney, 1997; Little, 1993), recent studies have aimed to provide a greater understanding of the factors that contribute to effective and high-quality TPD, which improves teaching and student performance (Brown & Weber, 2016; De Naeghel et al., 2016; Desimone, 2009; Hill et al., 2013; Knight et al., 2014, 2015; Kutaka et al., 2017; Penuel et al., 2007; Rodriguez et al., 2020).

In this vein, one of the focuses in education research in recent years has been to provide evidence for assessing the effectiveness with which TPD enhances self-efficacy, knowledge, skills, and teaching practice, as well as contributions to personal, social, and emotional growth as teachers (Rodríguez et al., 2020).

1.2 | Models of TPD

Starting from Kirkpatrick's classic model (1998), which specifies the evaluation of training effectiveness in four levels focused on the participant (reaction, learning, transfer, and impact), other models have been developed to provide more detailed explanations of the professional development processes. From this perspective, research has focused on modelling TPD as a linear process in which the different levels must be successfully overcome in consecutive order to explain the effectiveness of professional development programs (Desimone, 2009; Desimone et al., 2013; Guskey, 2002; Parsons et al., 2012; Stes et al., 2010). Moving beyond this hierarchical conception, other authors have developed more dynamic models (Blume et al., 2019) that aim to integrate the variables involved in TPD processes to provide a more detailed understanding of the complexity of these processes and contribute to their improvement.

Among them, Clarke and Hollingsworth's interconnected model (2002) starts from the premise that teacher change can begin at any point in the process through reflection and implementation in four domains: (a) personal; (b) practice; (c) outcomes; and (d) external. From this perspective, teacher change is interpreted as a complex process of reciprocal interaction between the different domains, and the mediating processes of reflection and implementation are identified as the mechanisms by which change in one domain can lead to change in another.

Dynamic explanatory models of TPD have been consolidating, recognizing the complexity of TPD and the need to approach it from a dynamic and multifactorial perspective to gain a better understanding of the processes involved and design more effective training initiatives. One key aspect they consider is the transfer of learning to evaluate the effectiveness of TPD. Therefore, it is important to not only understand how TPD develops but also to equip oneself with tools to evaluate the results of the different actions taken for this purpose.

1.3 | Transfer of learning to educational practice

The transfer of training is a complex and dynamic concept (Pamies-Berenguer et al., 2022). It can be defined as the generalization to the work context and the maintenance over time of the effective application of the knowledge and skills acquired in a learning context (Baldwin et al., 2009; Freitas et al., 2017; Govaerts et al., 2017). According to Feixas et al. (2015), transfer refers to the transition from the training situation to the real situation, seeking to

demonstrate that it occurs satisfactorily. This process includes the study of the conditions that influence the specific application. An accurate diagnosis of each condition or factor will indicate the ease or difficulty encountered in applying or transferring what has been learned to teaching practice. In this sense, the evaluation of transfer through the study of factors constitutes an indirect evaluation measure and has a predictive character. The transfer would be, following this reasoning, a prediction of effectiveness and impact.

Yoon et al. (2007) highlight the complex relationships between TPD and improvements in student learning and specifically advocate for examining whether TPD contributes to teachers achieving certain learning outcomes (Cochran-Smith, 2001), as well as improving teaching and student learning (Escudero Muñoz et al., 2017). In this line, Guskey and Yoon (2009) also point out the difficulty of linking TPD to specific improvements in student performance and emphasize the scarcity of solid, reliable, and valid evidence regarding the specific aspects of TPD that contribute to student learning.

A significant portion of research agrees that, before concrete effects on student learning, there must be a transfer of what teachers have learned to the classroom. For this reason, Yoon et al. (2007) argue that to show the link between TPD and student performance, it is ideal to establish connections between TPD and teaching learning and practice. They emphasize that the effects of TPD on student performance are mediated by teachers' knowledge, skills, and classroom practices. They add that if any element fails, for example, if a teacher does not use the new strategies learned in the classroom, students will not benefit from the teacher's TPD, and therefore, improvement in their learning cannot be expected.

Feixas et al. (2013, 2015) indicate that factors influencing the transfer of learning from teacher training programs are related to (1) the design of the training, focused on transferability to apply what is learned directly with their students; (2) individual factors, referring to self-efficacy, motivation, and the desire to transfer; and (3) factors related to the context, including support from leadership and colleagues, the teaching culture of the work team, resistance to change, and environmental opportunities such as resources and organizational structure.

In consideration of the aforementioned factors, the following three factors are highlighted as particularly relevant to the context of this research.

The first relevant factor related to training design is the definition of specific Improvement Goals (IG) situated in the intervention context to address identified challenges and areas for improvement. González-Ortiz de Zárate et al. (2017) assert that having an individualized improvement plan is the first step to promoting transferability.

Two other key aspects in transfer processes, situated within the realm of personal factors and extending to the contextual level, are agency as the second factor and teacher collaboration as the third factor. Teacher agency, understood as the ability to advance ideas, achieve goals, or transform the context (Beauchamp & Thomas, 2010), is a critical factor for school transformation (Lau, 2021). In turn, Hargreaves and O'Connor (2018) consider teacher collaboration necessary to encourage teachers to embrace innovations and changes. Through collaboration, teachers can exercise their collective agency, which refers to teachers' autonomous ability to provide support to and receive support from their colleagues to improve their teaching and overall school effectiveness. Collective agency entails positive interdependence among teachers and the development of transformative practices. These transformative practices materialize in teachers' willingness to share ideas and engage in debates with their colleagues, utilizing their critical feedback to enhance teaching practices (Pyhältö et al., 2015). Therefore, teachers' sense of collective agency is linked to their perceptions of collaboration. When teachers perceive a supportive and collaborative relationship with their colleagues, teachers' collective agency can grow, particularly when it focuses on achieving common goals for school improvement (Strahan, 2016).

1.4 | RPO and transferability

The observation of teaching practice is defined in specialized literature from different perspectives. The most common distinction is made between three models: supervision, development, and collaboration (Brix et al., 2014;

Fletcher, 2018; Gosling, 2005; Javahery & Kamali, 2023; Sachs & Parsell, 2013; Yiend et al., 2014). The difference lies in who conducts the observation, the relationship established between the observer and the observee, and the purpose of the observation.

From a collaborative perspective, RPO is defined as a practice in which two teachers work together as equals to observe and analyse some aspect of their teaching (Gosling, 2014). O'Leary (2020) adds that RPO is a symmetrical practice carried out between teachers with similar levels of experience, highlighting its collaborative and reciprocal nature. A proposed RPO development model is described by Corcelles-Seuba, Duran et al. (2023), which outlines a complete cycle of RPO consisting of four phases: (1) Preobservation: the pair of teachers agree on a clear and relevant focus of observation before the observation takes place; (2) Observation: two classroom observations are conducted in each role (observer and observee); (3) Feedback: a feedback session is held based on the evidence collected during the observation; and (4) Reflective synthesis: an individual reflective synthesis is written, specifying a work plan with IG, actions to be taken, and timelines (Corcelles-Seuba, Duran, et al., 2023; Fletcher, 2018; O'Leary & Savage, 2020).

RPO enables teachers to work together to enhance the capabilities involved in the instructional process and improve reflective practice by becoming aware of their own teaching methods. Observations conducted on colleagues initiate a process of constructing and reconstructing knowledge about teaching and developing new strategies to improve student learning outcomes. The reflective dialogue established between the pair during feedback helps improve pedagogical practice while continuing to nurture TPD, ultimately leading to an enhancement in the quality of teaching and learning (O'Leary, 2020).

RPO allows teachers to collect evidence of their practices to provide mutual and constructive feedback with the ultimate purpose of defining specific IG for their teaching (Corcelles-Seuba, Duran, et al., 2023; O'Leary & Savage, 2020).

Since the RPO aims to improve teaching practices, it is crucial to be able to describe the extent to which these improvements occur, how the acquired knowledge and skills are generalized, and how they are maintained over time. However, in a systematic literature review in the context of basic education (Corcelles-Seuba, Soler, et al., 2023), most of the analysed studies (96.3%) were based on teachers' perceptions, and only 11.1% of the studies reflected changes in teachers' perceptions through pre–post test data collection (da Costa, 1995; Sparks & Bruder, 1987; Thijs & van den Berg, 2002). In the three studies that reported changes in perceptions, positive effects of RPO were observed. For example, Sparks and Bruder (1987) showed that teachers increased their willingness to try new strategies after engaging in RPO.

Only 22.2% of the studies that evaluated changes in teachers' practices through preclassroom and postclassroom observations reported evidence based on solid research (Bruce & Ross, 2008; Golden et al., 2021; Johnson et al., 2017; Kohler et al., 1995; Licklider, 1995; Sparks, 1986). Three studies in the preschool context analysed improvements after observation (Golden et al., 2021; Johnson et al., 2017; Kohler et al., 1995), finding significant enhancements in behavior management, productivity, and incorporation of teaching strategies.

In studies in primary and secondary education, RPO was found to improve mathematics instruction and the skills of asking effective and appropriate questions to students, respectively (Bruce & Ross, 2008; Licklider, 1995; Sparks, 1986). Additionally, RPO training activities showed the greatest changes in teaching practices among three different strategies (Sparks, 1986).

In summary, RPO is shown to be a promising practice in terms of benefits for TPD and, consequently, for improving student outcomes. However, there are still no studies that delve into how RPO contributes to transfer processes and what factors influence its success.

Thus, the goal of this study is to provide evidence on how RPO, understood as a mechanism of collaborative teacher inquiry, from which personal objectives for educational improvement can emerge and be transferred to classroom teaching practices, improving educational quality and offering opportunities for TPD. The main objective is to examine and characterize the transfer process to the classroom after completing an RPO cycle based on:

1. Checking whether the transfer of Improvement Goals occurs in the classroom and to what extent, after completing a full cycle of RPO.
2. Identifying factors associated with teacher collaboration that can predict the definition and transfer of Improvement Goals to classroom practice after completing a full cycle of RPO.
3. Describing the factors that teachers who achieved optimal transfer perceived as effective in defining Improvement Goals and transferring them to practice.

2 | METHOD

2.1 | Participants

The study involved a sample of 230 volunteer active teachers who were organized in pairs, with one teacher acting as an observer ($n = 115$) and the other as observee ($n = 115$), from different schools in the Balearic Islands and Catalonia. The sample included 46 (20%) males, 181 (78.7%) females, 1 (0.43%) nonbinary participant, and 2 (0.87%) nonresponded. They came from different levels of education, including secondary school ($n = 97$; 42.17%), primary school ($n = 63$; 27.39%), preschool ($n = 22$; 9.56%), baccalaureate and vocational training ($n = 30$; 13.05%), adult education ($n = 4$; 1.74%), and other ($n = 14$; 6.09%). The mean age of the participants was 41.14 years old (SD = 9.003).

Before recruiting participants for the study, the Ethical Committee of the university approved the study, respecting the obligations derived from the Organic Law 3/2018 on Personal Data Protection and Digital Rights, General Regulation on Data Protection (UE) 2016/679, and the current complementary legislation. All participants received written information about the project and gave their consent to participate according to the ethics compliance procedures.

2.2 | Intervention description

During the 2021–22 academic year, an RPO intervention was conducted, which included a training session for teachers with adapted guidelines from O'Leary (2020) and a complete cycle of RPO in the four previously described phases.

To gather evidence of transfer in the classroom after completing a cycle of RPO, participants were invited to conduct a second observation. For the second observation, participating pairs of teachers were proposed to engage in a preobservation session where they shared the IG from the reflective synthesis with their partner and agreed upon the indicators to be observed during the second observation. On the agreed date, the second observation took place. At the end of this observation, the observer assessed the level of achievement of the IG and the agreed indicators. Subsequently, the observee evaluated the degree of achievement of their IG and identified factors that they believed facilitated or hindered the process of transferring the IG to their classroom practice.

2.3 | Instrument and data collection

For this study, various instruments were used to collect data on the different variables that arise in RPO and influence the processes of teacher-professional transfer.

- Second Observation Document
    The aim of this document was to document the transfer process to the classroom. To achieve this,

participants were asked to retrieve the IG established during the reflective synthesis (resulting from the first observation) and assess the transfer of the established IG after completing the first cycle of RPO, as well as the factors that may have affected the process. Two different grids were designed, one for the observer and another for the observee. In the observer's grid, a Likert scale (ranging from 0 to 4) was used to assess the level of achievement of the IG by the observee, with 0 indicating nonachievement and 4 indicating the maximum quality of achievement. As regards the observee's grid, they were asked to self-assess the degree of achievement of their IG using the same Likert scale from 0 to 4. Additionally, they were asked to evaluate the variables that had facilitated, been irrelevant, or hindered the achievement of the objective. The influence variables to be evaluated, selected from Feixas et al., ([2013](#), [2015](#)) and Holton III et al. ([2000](#)), referred to personal aspects: relevance of learning, motivation to initiate changes, perception of self-efficacy, responsibility, and work plan design; and contextual aspects: opportunities for implementing improvement proposals, available resources and means, support from the partner in the pair, and support from the teaching and management team. Finally, an open-ended question was posed to assess whether the participants considered RPO to be an effective practice for defining IG and transferring them to the classroom.

- Teacher Collaboration Perceptions Questionnaire (Corcelles-Seuba et al., [2024](#))

The aim of this instrument was to measure teachers' perceptions of collaboration in educational institutions. The questionnaire consists of three dimensions that allow different aspects related to collaboration to be assessed: school culture of collaboration, collective agency, and teachers' attitudes toward collaboration. The dimension of a school culture of collaboration, with an α reliability of .937, includes 10 Likert-type items ranging from 1 to 4. These items are used to assess perceptions of the collaboration culture within the school. The dimension of collective agency, with an α reliability of .907, comprises a total of 8 Likert-type items, also on a scale of 1 to 4. These items evaluate teachers' perception of their ability to work collectively and make joint decisions. Lastly, the dimension of teachers' attitudes towards collaboration consists of 10 Likert-type items. The reliability of this dimension, measured by the α coefficient, is .83. These items are used to assess individual teachers' attitudes toward collaboration.

For this research, the results obtained after the completion of the previously conducted RPO cycle were used.

3 | DATA ANALYSIS

This study adopts a sequential explanatory mixed-methods design (Creswell, [2021](#)). To address the first objective, a descriptive analysis is carried out to identify if the transfer of IG to the classroom occurs. Frequencies and percentages of IG achievement levels after the second observation are reported by the observees and the observers. A concordance analysis, Cohen's Kappa (Landis & Koch, [1977](#)), is performed to estimate the agreement between the evaluations of the observees and the observers, thus considering the assessments of the observees as accurate reflections of reality.

For the second objective, a logistic regression model is carried out based on the responses to the *Teacher Collaboration Perceptions Questionnaire* from the observees who rated their transfer as optimal ($n = 48$) at the end of the RPO cycle. The aim is to examine the predictor variables that could influence the transfer of IG to the classroom. Univariate models are conducted, including each variable separately, to estimate the individual contribution of each variable. The odds ratios (OR) associated with each variable, and their 95% confidence intervals (CIs), are presented. These values indicate the direction and magnitude of the association between each variable and the probability of IG transfer. When examining variables related to RPO and the transfer process, efforts were made to identify those that had a significant impact on the transfer to the classroom.

To address the third objective, two analysis was conducted. A descriptive analysis was carried out to explore how personal and contextual factors, according to the perception of the observees who rated the transfer as

optimal (n = 48), influenced the implementation process of IG. Additionally, a qualitative analysis with a phenomenological approach was conducted to explore the aspects that fostered the definition of IG and their transfer to the classroom. Specifically, a thematic analysis based on Braun and Clarke (2022) was performed to identify, analyse, and report patterns in the responses provided by teachers to the open-ended question: "Why is RPO an effective practice for defining IG and transferring them into practice?" Given the nature of the study, an inductive process was followed to analyse the addressed themes. Segments of information were extracted from the collected data and grouped according to their similarity concerning the study's object, ensuring that the developed themes were exhaustive and mutually exclusive, thus fulfilling the requirements of a categorization system (Braun & Clarke, 2022). For each theme, the frequency and the corresponding percentage weight were then calculated.

The validity and reliability of the analysis were also ensured through expert judgment, obtaining an 86% agreement level (Cohen's Kappa), which can be considered excellent (Landis & Koch, 1977). Cases of disagreement were discussed until a consensus was reached. Following this, one of the judges completed the rest of the coding.

The analyses were conducted using Jamovi 2.3.21 software. For all analyses the significance level of .05 was set.

4 | RESULTS

Objective 1: Check whether the transfer of Improvement Goals occurs in the classroom and to what extent, after completing a full cycle of RPO.

To address this objective and provide answers to the questions posed, evaluations of the observees and observers were collected regarding the degree of IG transfer to the classroom, as indicated in the document of the second observation. The results obtained revealed different levels of IG achievement after a cycle of RPO, classified on a scale ranging from level 0, indicating a lack of transfer, to level 4, representing optimal transfer.

Regarding the degree of IG transfer achievement, evaluations conducted by the observees (n = 115) showed a concentration in levels 3 and 4 (Table 1). Specifically, 48.70% (n = 56) were situated at level 3, while 41.74% (n = 48) reached level 4. To contrast these scores, evaluations provided by the observers (n = 115) after conducting the second observation were also analysed. In this case, it was observed that most responses were concentrated at level 4, with 60% (n = 69), while level 3 represented 34.78% (n = 40).

Concordance analysis was conducted to compare the differences between the evaluations of observees and observers, resulting in a Kappa index of 0.6, indicating a good level of agreement. This agreement suggested that the observees' evaluations could be considered appropriate for assessing the level of achieved transfer. It is worth noting that, in all cases, observees' evaluations were more demanding than those of the observers.

TABLE 1 Assessment of the level of IG transfer during the second observation, by observers and observes.

Achievement level IG		Observee		Observer	
		n	%	*n*	%
	Lack of transfer	1	0.87	0	0
1	The IG and associated actions are transferred to some extent (25%)	1	0.87	0	0
2	The IG and associated actions are transferred partially (50%)	9	7.83	6	5.22
3	The IG and associated actions are transferred mostly (75%)	56	48.70	40	34.78
4	The IG and associated actions are fully transferred (100%)	48	41.74	69	60
Total		115	100	115	100

TABLE 2 Logistic regression analysis of RPO predictors of achieving improvement goals.

RPO predictors	Odds ratio (OR)	Confidence interval 95%	Z	p
School collaborative culture	2.047	1.129–3.712	2.36	.014*
Collective agency	2.197	1.030–4.685	2.04	.037*
Teachers' attitudes towards collaboration	0.877	0.428–1.80	0.35	.720

Abbreviation: RPO, Reciprocal Peer Observation.

*$p < .05$

Objective 2: Identify factors associated with teacher collaboration that can predict the definition and transfer of Improvement Goals to classroom practice after completing a full cycle of RPO.

To address this objective, the aim was to determine which variables related to the first cycle of RPO could significantly predict teachers' ability to transfer and apply the identified IG in the classroom. For this purpose, using data provided by the observees who reported achieving optimal transfer at the end of the RPO cycle ($n = 48$), a Logistic Regression analysis was conducted, evaluating three key variables in RPO: *School collaborative culture*, *Collective agency*, and *Teachers' attitudes towards collaboration*. OR with their 95% CIs were calculated. As shown in Table 2, the data revealed that *School collaborative culture* had an OR of 2.047 (95% CI: 1.129–3.712, $p = .014$), indicating that teachers who perceive a strong collaborative culture in their school are twice as likely to achieve their IG. Similarly, the *Collective agency* also showed a statistically significant association with IG achievement, with an OR of 2.197 (95% CI: 1.030–4.685, $p = .037$). However, *Teachers' attitudes towards collaboration* did not show a statistically significant association with IG achievement (OR = 0.877, 95% CI: 0.428–1.80, $p = .720$).

To conduct a more detailed analysis of the significant variables, each indicator related to *School Collaborative Culture* and *Collective Agency* was evaluated, and their predictive ability was examined through logistic regression analysis.

Regarding *School Collaborative Culture* (Table 3), it was found that teachers who reported higher participation in collaborative development activities (*The common development work in our school has made it easier to carry out my own teaching*) also demonstrated a greater ability to transfer IG in their daily teaching, with an OR of 2.018 (95% CI: 1.193–3.414, $p = .007$).

Furthermore, it was found that a culture of shared responsibility for school matters was also positively associated with IG attainment. Teachers who perceived a school culture that promoted shared responsibility for addressing school issues (*The school has a culture of shared responsibility for school issues*) showed a greater ability to implement the identified IG, obtaining an OR of 1.702 (95% CI: 1.056–2.742, $p = .024$).

Another relevant finding was the relationship between *School collaborative culture* and mutual support among members of the school community. Teachers who experienced a school culture characterized by mutual support (*There is a collaborative school culture characterized by mutual support*) demonstrated a greater capacity to carry out the IG in the classroom, with an OR of 1.698 (95% CI: 1.028–2.804, $p = .032$), highlighting the importance of support and collaboration among members of the school community to achieve effective implementation of the IG.

As mentioned previously, the results revealed that *Collective Agency* also had a significant predictive impact on IG attainment in the classroom. Significant associations were found between certain indicators of *Collective Agency* and teachers' ability to transfer the identified IG (Table 4). One of the dimensions analysed in this construct was *Positive Interdependence*, which reflects teachers' willingness to offer help to their colleagues.

Within this construct, two indicators were found to be statistically significant. Specifically, promotion of collaboration among colleagues (*I encourage my teacher colleagues to collaborate*) showed a significant association with IG attainment, with an OR of 2.119 (95% CI: 1.170–3.837, $p = .01$). Additionally, it was discovered that teachers willing to take action for the benefit of the entire teacher community (*I'm willing to act to advance the best*

TABLE 3 Logistic regression analysis of *School Collaborative Culture* as a predictor of achieving improvement goals.

School collaborative culture	Odds ratio (OR)	Confidence interval 95%	Z	p
1. *At school, we can deal with challenging school situations together.*	1.380	0.840–2.27	1.27	.198
2. *At school, teachers work together to meet all student needs.*	1.494	0.889–2.51	1.52	.121
3. *The common development work in our school has made it easier to carry out my own teaching.*	2.018	1.193–3.414	2.62	.007**
4. *In our teacher community, we encourage each other to advance professionally.*	1.263	0.765–2.08	0.915	.357
5. *The school has a culture of shared responsibility for school issues.*	1.702	1.056–2.742	2.19	.024*
6. *There is a collaborative school culture characterised by mutual support.*	1.698	1.028–2.804	2.07	.032*
7. *The school staff share a common set of beliefs about teaching and learning.*	1.477	0.861–2.53	1.42	.151
8. *The school encourages staff to lead new initiatives.*	1.276	0.784–2.07	0.983	.321
9. *The school provides staff with opportunities to actively participate in school decisions.*	1.340	0.838–2.14	1.22	.217
10. *Teachers can rely on each other.*	1.487	0.812–2.72	1.29	.192
School collaborative culture (alpha = 0.937)	2.047	1.129–3.712	2.36	.014*

*$p < .05$.

TABLE 4 Logistic regression analysis of *Collective Agency* as a predictor of achieving improvement goals.

Collective agency	Odds ratio	Confidence interval 95%	Z	p
Positive Interdependence (alpha = 0.707)	1.769	0.899–3.48	1.65	.09
1. *I'm willing to offer help to my colleagues.*	0.871	0.460–1.65	−0.423	.672
2. *I encourage my teacher colleagues to collaborate.*	2.119	1.170–3.837	2.48	.01*
3. *I'm willing to act to advance the best of our entire teacher community.*	1.864	1.027–3.385	2.05	.034*
Transformative practice (alpha = 0.855)	1.883	0.926–3.829	1.75	.74
4. *Other teachers' ideas encourage me to advance my own teaching.*	1.664	0.893–3.10	1.61	.10
5. *I'm willing to discuss my own work with my teacher colleagues.*	1.722	0.807–3.67	1.41	.154
6. *The discussions with my colleagues inspire my work.*	1.609	0.8702–2.97	1.52	.123
7. *I use the feedback from teacher colleagues to improve my teaching.*	1.274	0.7330–2.21	0.859	.386
8. *I use the critical feedback I get from my colleagues*	2.288	0.797–6.58	1.54	.10
Collective Agency (alpha = 0.907)	2.197	1.030–4.685	2.04	.037*

*$p < 0.05$.

of our entire teacher community) had an OR of 1.864 (95% CI: 1.027–3.385, *p* = .034). This disposition has a statistically significant impact on IG attainment.

Furthermore, although no statistically significant association was found in the *Positive Interdependence* construct with IG attainment, a positive trend was observed. Teachers who demonstrated a greater willingness to provide help to their colleagues had an OR of 1.769 (95% CI: 0.889–3.48, *p* = .09), suggesting that it is a relevant variable and may have an influence on IG attainment.

While *Transformative Practice*, the second dimension of *Collective Agency*, did not yield statistically significant results, it can still be considered a relevant variable with an OR of 1.883 (95% CI: 0.926–3.829, *p* = .074). Within this dimension, two indicators can be considered relevant: *Other teachers' ideas encourage me to advance my own teaching* (OR = 1.664, 95% CI: 0.893–3.10, *p* = .10) and *I use the critical feedback I get from my colleagues* (OR = 2.288, 95% CI: 0.797–6.58, *p* = .10).

Objective 3: Describe the factors that teachers who achieved optimal transfer perceived as effective in defining Improvement Goals and transferring them to practice.

Upon completion of the entire process, to address this objective, the perceptions of the observees who rated the transfer of IG as optimal (*n* = 48) were analysed regarding the influence of personal and contextual factors that may have influenced this transfer process, as well as their responses to a final question about their perceptions of whether RPO can help to achieve IG and transfer them into practice.

Regarding personal factors, self-efficacy was identified as the most influential factor by most teachers (*n* = 45; 93.75%) for implementing the IG defined during the first cycle of RPO in practice. They also mentioned other personal factors they considered influential, such as personal responsibility for transferring improvement proposals into practice (*n* = 43; 89.58%), personal motivation to make changes in daily practice (*n* = 43; 89.58%), the design of a work plan at the end of the first observation, specifying IG, actions to implement, a specific schedule (*n* = 40; 83.33%), and the relevance of the learning throughout the RPO process (*n* = 36; 75%).

Regarding contextual factors, they indicated that the support of the colleague with whom they carried out the RPO process was crucial for facilitating transfer (*n* = 44; 91.67%). Another influential factor they mentioned was the opportunity to apply and develop the IG (*n* = 40; 83.3%). In contrast, other contextual factors that were asked about received lower values regarding their possible influence on the transfer process. For example, the influence of available means and resources—only a little over half (*n* = 25, 52.08%) indicated that it could have influenced the transfer process, showing more critical views on these aspects in their contributions. Likewise, they considered the support of the teaching team (*n* = 31, 64.58%) and the support of the management team (*n* = 30, 62.5%) as irrelevant factors (neither facilitating nor hindering) in the transfer process.

The thematic analysis of participants' perceptions of the effectiveness of peer observation in defining IG and their subsequent application in practice is presented in Table 5. The emerging categories are detailed along with their descriptions, representative excerpts, and corresponding frequency and percentage weight.

Before addressing why RPO practices are effective in defining IG and implementing them, teachers mostly identified two key factors. On the one hand, the support of the partner colleague (*n* = 48; 70.83%), and on the other hand, RPO as an effective practice for reflection and awareness to promote the improvement of teaching practice (*n* = 48; 60.41%).

5 | DISCUSSION

This study aimed to investigate the transfer process to the classroom after completing a full cycle of RPO in the classroom. Specifically, it aimed to determine if RPO processes facilitate the transfer of identified IG to the classroom and identify factors that may explain it.

Based on the conducted study, it can be concluded that participating in an RPO cycle predominantly promotes the transfer of identified IG to the classrooms by teachers. Although this process requires effort and dedication,

TABLE 5 An analysis category system for teachers' responses to the question: Why do you consider RPO to be an effective practice for defining IG and transferring them to practice?.

Categories	Description	Excerpt T = Teacher (code)	$n = 48$ F (frequency)	Weight (%)
Reflection, awareness, and improvement of teaching practice	Teachers consider RPO as an effective tool for reflecting on their practice, becoming aware of strengths and weaknesses, and implementing changes to enhance teaching. Through this process, they enrich their professional skills and strive for continuous improvement.	T(48): I not only believe it is effective, but also necessary for achieving improvement in educational practice. Sharing, dialoguing, and debating about the didactic and methodological aspects of everyday classroom life helps us reflect on how we teach and how students learn. Agreeing upon and focusing on the aspects we want to evaluate facilitates the continuous improvement of our practice.	29	60.41
Motivation and involvement	RPO can stimulate the definition of IGs and the implementation of actions to achieve them.	T(35): Yes, it sparks IGs and motivates teamwork and individual improvement.	7	14.58
Colleague support	The importance of collaboration among teachers and the improvement of educational practice through RPO. Support between teacher pairs provides opportunities to identify IGs, exchange experiences, and provide constructive feedback.	T(38): Sharing this work with the observation partner has made us realize the importance of the aspect we worked on, helped us jointly construct a reference framework, and once we analysed its application in the classroom and the benefits for students, we realized the need to share it with other colleagues to apply it more systematically in our teaching practice. Therefore, it is a very good tool to promote a culture of improvement in the educational field.	34	70.83
Improvement of student learning	RPO contributes to enhancing student learning. Through RPO and the implementation of changes, teachers can better adapt to students' needs and contribute to improving the classroom environment.	T(7): Being able to reflect with my colleague has helped me establish new improvement goals and achieve new challenges that align better with my students' learning strategies.	9	18.75
School's culture of collaboration	Implementing RPO requires a culture of collaboration and communication within the school.	T(13): It can involve establishing a very close relationship between teachers and thus promote communication.	9	18.75

TABLE 5 (Continued)

Categories	Description	Excerpt T = Teacher (code)	n = 48 F (frequency)	Weight (%)
Continuity	The importance of maintaining continuity in RPO is emphasized to ensure the transfer of OM to the classroom.	T(6): Conducting a second observation has facilitated the ability to see the evolution of the measures, the classroom functioning, and the established objectives.	3	6.25
Requirements, resources, and support	The need to consider both the necessary requirements and the support and incentives for RPO is reflected as key elements for successful implementation.	T(23): It makes me reflect on the need to have scheduled hours in the teaching schedule to be able to share pedagogical experiences with colleagues.	6	12.5

both at the organizational level (schedules, timing, coordination) and personal level (overcoming resistance, questioning one's own practice based on a colleague's observation), the entire process results in changes in the teaching practices of the participants. A large majority of observees who participated in the second observation to implement the identified IG after an RPO cycle were able to transfer them to the classroom at advanced levels, with some achieving optimal transfer (41.74% according to self-assessment by the observees and 60% according to the observers). It is worth noting that the observees are more critical in assessing the degree of transfer achievement than their observers. Considering that TPD takes place in a context of high demands (Yoon et al., 2007) and that changing educational practices is a gradual and complex process for teachers (Guskey, 2002), these results can be considered promising. RPO, therefore, is a practice that supports TPD. These results are significant as they are based on self-reports corroborated by another evaluation measure, the assessment reports by observers. This overcomes the limitations of studies relying solely on self-reports (Eva & Regehr, 2005; Gordon, 1991).

The results emphasize the importance of *School collaborative culture* and *Collective agency*, focused on P*ositive interdependence*, as predictive factors for the successful implementation of IG in teaching practice. Thus, the practical implications for promoting the development and transfer of IG are centred around fostering collaboration and teamwork among teachers, promoting a culture of shared responsibility, and providing mutual support within the school community. In line with this, it is important to encourage collaboration among colleagues, utilize constructive feedback, and create an environment where teachers can share ideas and support each other as key elements in this process. These practical implications highlight the need to create a collaborative and supportive environment in schools, which will contribute to a more effective implementation of IG arising from RPO and, consequently, improve teaching and learning.

During the transfer process, the results show the influence of factors related to personal competencies, such as perceived efficacy, responsibility, and motivation, on the success of IG transfer. These aspects, along with the specific definition of IG based on RPO and the relevance of the acquired learning, were identified as facilitating factors in the transfer process to the classroom. Participants highlighted RPO as an effective practice for reflection, awareness, and improvement of their instructional practices in the classroom. Among the contextual factors perceived as facilitators of the transfer process, the value of peer support was emphasized, specifically referring to the support provided by the RPO partner, as well as the availability of opportunities to implement IG. In the development of RPO, gathering evidence through observation in the classroom context connects with the teachers' own professional development needs and aligns with the characteristics of effective TPD (Barr et al., 2015). Analysing and discussing these pieces of evidence with the partner through reflection, dialogue, and discussion during the process, and subsequently defining IG for the improvement of educational practices (Corcelles-Seuba, Duran, et al., 2023), is a situated process that responds to teachers' concerns and doubts regarding the suitability of their pedagogical practices, and it promotes collaboration and commitment to educational improvement.

Therefore, promoting RPO practices in a trusting and supportive environment where teachers feel motivated and supported to collaborate, observe each other, share ideas, and utilize feedback from colleagues to define IG and transfer them to the classroom can have a significant impact on teaching and learning processes. It should be noted that conducting a second observation process was identified in some cases as an opportunity to further advance the implementation of the defined IG. This aspect highlights the need for continuous and sustainable RPO processes in schools to advance personal and institutional improvement processes.

Thus, a significant part of RPO's potential as a TPD mechanism lies in understanding the observation and mutual feedback process as a key instrument for the detailed identification of personal teaching improvement objectives. Allowing teachers themselves to determine these objectives based on their own reflections and those provided by the observer has proven relevant in introducing such changes in the classroom.

Finally, it is crucial to emphasize that focusing RPO processes on identifying IG, considering them as intrinsic elements of RPO, and promoting their effective transfer to the classroom, while ensuring optimal conditions such as a collaborative culture and collective agency, will guarantee the effectiveness of RPO for TPD.

While the findings of this study are promising in terms of the transfer processes to the classroom resulting from RPO practices, it is important to acknowledge several limitations that warrant consideration in future research. One limitation is the relatively small sample size, which may limit statistical power. Therefore, future research should aim to increase the sample size to better validate and generalize the reported findings. In addition, the short period of time between the completion of the RPO cycle and the second observation may have influenced the observed performance levels. Existing literature suggests that a sufficient time frame is required to confidently determine the presence of transfer. Furthermore, although this study indicated certain changes in teaching practice resulting from RPO, it lacks information on the generalization over contexts and the sustainability of such practice over time. To address this limitation new cycles of RPO are recommended. These subsequent cycles might be used to assess whether the implemented improvements are maintained, thus ensuring a sustained transfer of acquired knowledge (Baldwin & Ford, 1988; Blume et al., 2010).

In conclusion, the findings of this research highlight the effectiveness of peer observation as a promising practice for facilitating the transfer of what has been learnt through peer observation to the teaching classroom practice and thus strengthening teachers' professional development. It is therefore essential to create educational environments that encourage collaboration between teachers and promote a culture of continuous learning. From an educational perspective, these findings point to the importance of integrating strategies that encourage peer observation as part of training and professional development programmes in schools. This may require the adaptation of educational policies to support and encourage collaboration between educators, as well as the allocation of adequate resources for training and time for collaboration and feedback to facilitate the sharing of effective practices among teachers. In turn, this could contribute to improving the quality of education and have a positive impact on outcomes and equity within the education system.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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