

Research article

The Role of Feedback in Teacher Professional Development

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Abstract: This paper examines how professional development (PD) facilitators obtain feedback about the effectiveness of sessions they facilitate, and to what extent feedback is an integral part of their planning. Three professional development facilitators with varying degrees of experience served as participants in this study. One-on-one semi-structured interviews was used to collect data, and the data were analyzed utilizing an interpretative phenomenological approach (IPA). The findings showed that the participants obtained feedback from teachers using different methods before, during, and after their professional development sessions. The facilitators used feed-back to plan and check the effectiveness of their sessions, and feedback was an integral part of their professional development work.

Keywords: teacher professional development, feedback, effective professional development, facilitators, trainers

1. Introduction

Positive outcomes of professional development on educators have been cited repeatedly in the literature. For example, professional development has been found to advance instruction and student learning (Darling-Hammond & Richardson, 2009; Fishman et al., 2017; Garet et al., 2001; Guskey & Yoon, 2009; Heller et al., 2012; Popova et al., 2022; Voerman et al., 2015). Some researchers focus on factors that make professional development more effective (Fishman et al., 2017; Garet et al., 2001; Guskey & Yoon, 2009; Heller et al., 2012) and have pointed out some key features such as the content relevance, expert support, sustained duration of the PD, and hands-on learning opportunities for teachers that make the teacher professional development effective (Darling-Hammond et al., 2017; Desimone, 2009; Kang et al., 2013; Kennedy, 1998; Mundry, 2005; Shulman, 1998; Thurlings & den Brok, 2017). Among the factors cited in the literature as a key player in the professional development effectiveness equation is feedback (Darling-Hammond et al., 2017; Dickinson & Brady, 2006; Hertz et al., 2022; Snyder & Wolfe, 2008).

Duijnhouwer (2010) defines feedback as “information provided by an external agent regarding some aspect(s) of the learner’s task performance, intended to modify the learners’ cognition, motivation and/or behavior for the purpose of improving performance” (p. 16). Specific and goal-oriented feedback is the type of feedback that has been found to be the most effective in improving learning among those receiving the feedback (Alder, 2007; Barana et al., 2021; Dawson et al., 2019; Duijnhouwer, 2010; Hattie & Timperley, 2007; Panadero & Lipnevich, 2022; Shute, 2008).

Teachers provide feedback to other teachers in professional development (Hunt et al., 2021). Facilitators’ follow-up tasks involve feedback (Catete et al., 2020; Darling-Hammond et al., 2017; Ingvarson et al., 2005; Shortland, 2010). Teachers feel supported and more confident when feedback is provided in a professional development environment (Gubbins & Hayden, 2021; Scheeler et al., 2010; Thurlings & den Brok, 2017). Feedback is viewed as the evidence of PD effectiveness and support in different models of PD (Hertz et al., 2022; Ingvarson et al., 2005; Shortland, 2010). Feedback on various levels of PD is sought to enhance teacher professional development. Teachers reflect on their own instruction through feedback from other teachers and PD facilitators (Chien, 2020; Ingvarson et al., 2005; Kunemund et al., 2022). PD facilitators seek feedback from teachers and other shareholders, such as coaches and administrators, and use the feedback provided to improve professional development.

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2. Materials and Methods

2.1 Research Design

A qualitative design was utilized in this study using one-on-one, semi-structured interviews to investigate both how PD facilitators obtain feedback about the effectiveness of their professional development sessions and to what extent the feedback they receive is an integral part of the teacher professional development. Researchers (e.g., Bogdan & Biklen, 2007; Merriam & Tisdell, 2015) state that the qualitative research is used to study a phenomenon in a descriptive manner and do so in a natural setting where participants experience it. Through this, a researcher investigates and wants to know about a participant's perception of experience and, thus, asks questions.

The semi-structured interview format was used in this study because it allows the participants to respond in the manner they choose. It also provides the opportunity for the researcher to examine and compare the participants' responses in contrast (McIntosh & Morse, 2015; Rabionet, 2011). In addition, semi-structured interviews enable reciprocity between the researcher and participants (Kallio et al., 2016) as well as offers the interviewer the flexibility to adapt to the rhythm, flow, and pace of the meeting.

2.2 Participants

The participants in this study consisted of three teacher professional development facilitators selected based on the following criteria: to have served or to be serving as licensed teachers of any subject in the US public school system, and to be currently involved and active in facilitating PD for teachers. Participants had anywhere from 6 to 11 years of experience teaching school subjects and 4 to 20 years of experience facilitating teacher PD in a range of 100 to over 200 PD workshops. They all worked as PD facilitators, including one with a managing position, at a Midwestern educational institution. The convenient sampling method was used to select the participants.

2.3 Data Collection

Data in the current study were collected through semi-structured, one-on-one interviews. The interviews were audio-recorded with the participants' consent. To ensure confidentiality, participants' names were pseudonym-protected, and their details were removed. Face-to-face, one-on-one interviews with each participant were conducted in a single sitting. Interview sessions lasted around 40 minutes and the interviews were audio-recorded with the consent of the participants. The interview protocol had 41 questions seeking information about the participants' professional background, how they facilitated PD sessions, what they did in those sessions, and why they facilitated PD in the way they did. Before the interviews were conducted, the researcher asked the participants to respond to the interview questions based on their perspective of teacher PD. The interview protocol and the consent forms for audio-recording were emailed to the participants before the interviews were conducted.

2.4 Data Analysis

This study adopted an interpretative phenomenological approach (IPA) was utilized to analyze the transcribed interview data. In a phenomenological approach, data analysis involves themes, units, and meanings gleaned from the participants' experiences (Moerer-Urdahl & Creswell, 2004). In addition, IPA researchers focus on how individuals make sense of their experiences (Gill, 2014). The data analysis process in the interpretative method connects the perspectives of both the participant and the researcher (Pietkiewicz & Smith, 2014; Smith, 2004). The data analysis stages, based on Smith et al. (2009) IPA outline that the researcher followed in this study included the following: researcher,

- reading and rereading the first transcript to take notes of possible cluster themes,
- using cluster themes noted from the first transcript to analyze other transcripts and connect themes,
- tabulating the final themes and sub-themes,
- forming a narrative derived from the themes.

3. Results

This study aimed to examine how PD facilitators obtain feedback about the effectiveness of their PD session and to what extent feedback is an integral part of PD planning.

One-on-one interviews with the PD facilitators revealed various aspects of feedback used by them. The three main aspects that the PD facilitators consistently brought up included the timing of feedback, the direction of feedback, and the medium of feedback. (See Table 1.)

Table 1. Three main aspects of feedback

Timing of Feedback	Direction of Feedback	Timing of Feedback
Pre-PD	Planning	Survey Website
During PD	Planning & Checking	Observation Face-to-Face Communication
Post-PD	Checking	Observation Communication w/ coaches

The following is an account of PD facilitators' references to these three aspects of feedback.

3.1 *Timing of Feedback*

The analysis of the data collected showed that PD facilitators sought feedback about their teacher professional development sessions before the sessions took place; during the PD sessions; and following the PD sessions.

When they receive a call to facilitate PD sessions at a school and learn that teachers need PD, the first thing they do is to organize some type of a needs-assessment to get feedback about teachers' specific PD needs. They do this before they begin PD sessions as is reflected in the following excerpts.

"Well, planning, so I'd like to start with a needs assessment. I think that's probably my ...remembering. Just talking and looking at data; so figuring out what is it that they need; coming up with a plan; using my knowledge around engaging adults and motivation." (T1)

"A lot of times in preparation I'll interview folks and I'll send out a survey ahead of time or I'll send out the actual agenda and give them a power point or put it together on a Web site so that they can give me feedback and tell me if I'm on track and if it's not meeting what they think it should do, then I change it." (T3)

During the PD sessions, facilitators obtain feedback from the PD attendees to ensure they are delivering PD to meet the teachers' needs and to timely make necessary adjustments in their PD delivery as revealed in the following responses.

"...I watch body language. I am really intentional about the body language. How are they reacting to me? Do they need a break? Did my directions make sense? Watching the non-verbals between the participants for the same reasons...not only...do I need to change something I'm doing but also like, OK, so what's the culture? Are they OK with each other? How is that effective? And then watching for learning. So, are they getting it or not? Do we need to go back and retry something? Like constantly formatively assessing; and then I do try to model using technology tools. So, I might use electronic sticky notes to ask them for formative assessment and then when we take a break I'm looking at their responses to just figure out if they get it or not get it, what do I need to adjust." (T1)

"So, when I put participants in groups which I do quite frequently, when I give them time to talk at their groups, I circulate the room and what am I listening, I look for 'are they applying it? Do they get it? Or are they confused, trying to clarify?' So, off of that low-inference data, I will also do check points every ten-fifteen minutes or between a topic, I'll say 'ok, turn and talk to your table group, so clarify your thinking, what questions are still surfacing' so then I'll ask them to clarify with their group and when I pull them back together, I'll say 'ok, anything we need to clarify with the whole group?' and I'll give them the opportunity then to clarify with the whole group." (T2)

"I think what I bring to the table is I'd like to ask a lot of questions so that I could find out where they are. Based on where they are in their thinking or their skill set. I try to find out what they think they need and provide opportunities in that classroom to either stretch them in an area that maybe they're not strong in or reinforce an area of strength that they might have." (T3)

Following the PD sessions, the facilitators used various means to get feedback about the effectiveness of the PD. This is demonstrated by the following responses:

“And then, at the end of a session, I always like to do some sort of a check. Check in with them and have them process it and make a commitment. And I try to always ask for some feedback (27:18). Some sort of a survey about the presentation, what they liked, didn't like. Sometimes it's on paper, sometimes it's electronic. It just depends.” (T1)

“I typically end with some kind of a recap, review, and I always want feedback. Typically, I am trying to elicit feedback either through a Google form, a follow-up survey or some kind of way for them to give me feedback on how they changed in their thinking and in what they've been able to do.” (T2)

“We actually go and visit their schools later on. And they show us what they've been doing and we actually watch them in action and that's been very effective.” (T3)

3.2 The Direction (Purpose) of Feedback

The feedback that the PD facilitators obtained before, during, and after the PD sessions served the purposes of planning and checking as shown in the one-on-one interviews. PD facilitators used the collected feedback to either plan their PD sessions relevant to the teachers' needs or check if their PD sessions were effective.

PD facilitators used the feedback they obtained from the teachers before the PD sessions for planning and preparation purposes:

“So, before the session, I try to talk as many people in the district as I can about what are their needs, what are their goals. So, some sort of needs assessment and then planning. I like to, if there's time, kind of present my plan to whoever I talked to and say is this gonna fit the needs, so now, what do we need to change and I also like to engage the staff that's there.” (T1)

“So, usually when a district calls to me with a PD request, so, the district will contact me to say ‘hey, can you come to talk on this topic?’ My follow-up question to them is ‘what data do you have to support the idea that you have this need in the district?’” (T2)

“A lot of times in preparation I'll interview folks and I'll send out a survey ahead of time or I'll send out the actual agenda and give'em a powerpoint or put it together on a Web site so that they can give me feedback and tell me if I'm on track and if it's not meeting what they think it should do, then I change it.” (T3)

Similarly, the PD facilitators continuously checked if their PD session was working and if they needed to adjust their delivery of PD in their sessions. what the facilitators shared below show how they sought feedback during the sessions:

“The other thing during the session is I watch body language. I am really intentional about the body language. How are they reacting to me? Do they need a break? Did my directions make sense? Watching the non-verbals between the participants for the same reasons...” (T1)

“So, I might use electronic sticky notes to ask them for formative assessment and then when we take a break, I'm looking at their responses to just figure out if they get it or not get it, what do I need to adjust.” (T1)

“I circulate the room and what am I listening, I look for ‘are they applying it? Do they get it? Or are they confused, trying to clarify?’” (T2)

“Usually, I am reading faces and I'm also looking for cues ‘are they off task?’ And if they are off task, for example, side-by conversations, checking emails while they are off task, is it because I went too fast when I walked them? Is it because it's not relevant, they already know this? So, I'm trying to collect those clues, too.” (T2)

The third type of feedback that the facilitators sought was obtained after the PD sessions, the feedback that the PD facilitators obtained from teachers, instructional coaches, and the school principals provided, as indicated in the responses below, insight about the effectiveness and the impact of PD on teachers' instructional practices and student achievement.

“And then, at the end of a session, I always like to do some sort of a check. Check in with them and have them process it and make a commitment. So like when I use this ...check, there is heart and feet. So, they find a partner. So, what's one thing you learned today and how you are feeling about what you learned, and what supports would you need to implement it? Like a red light or like a stop light. What's one practice you are gonna stop about what we learned? What's one thing you are gonna keep doing? What we learned today that validates

it? And then, what something new you are going to try? So, I just try to have some sort of a processing tool that acknowledges like what did you get out of this. What are you coming through before the trying?" (T1)

"And then, at the end of a session, what I also try to do is some sort of a follow up with whoever asked me to come. So, if it's principal or coach, it would be like OK so, in a month, can I come with you to walkthroughs and see how it's going or in two weeks, they are going to email, so what...what is the next step?" (T1)

"I typically end with some kind of a recap, review, and I always want feedback. Typically, I am trying to elicit feedback either through a Google form, a follow-up survey or some kind of way for them to give me feedback on how they changed in their thinking and in what they've been able to do." (T2)

"I think if...one way I know it's effective is when I come back and see those people later or visit their school and I see it in action. It's been effective." (T3)

3.3 The Medium of Feedback

The method of obtaining feedback, for PD facilitators, from teachers and schools participating in the PD sessions varied. The excerpts below show how, before the PD sessions began, the PD facilitators used technology to obtain feedback for needs assessment purposes, they communicated with school administrators or visited their schools:

"So, before the session, I try to talk as many people in the district as I can about what are their needs, what are their goals. So, some sort of needs assessment and then planning. I like to, if there's time, kind of present my plan to whoever I talked to and say is this gonna fit the needs, so now, what do we need to change and I also like to engage the staff that's there." (T1)

"So, usually when a district calls to me with a PD request, so, the district will contact me to say 'hey, can you come to talk on this topic?' My follow-up question to them is 'what data do you have to support the idea that you have this need in the district?' (T2)

"A lot of times in preparation I'll interview folks and I'll send out a survey ahead of time or I'll send out the actual agenda and give'em a powerpoint or put it together on a Web site so that they can give me feedback and tell me if I'm on track and if it's not meeting what they think it should do, then I change it." (T3)

During the PD sessions, PD facilitators often observed the participant teachers in the group and used their observation as feedback about how the teachers were benefiting from the PD sessions.

After the sessions, PD facilitators collaborated with administrators and instructional coaches to visit and observe the teachers in the classrooms; they used technology to give out surveys on how effective the PD sessions were; and communicated with school administrators for further PD plans. The following two responses highlight what the facilitators said they do:

"And I try to always ask for some feedback (27:18). Some sort of a survey about the presentation, what they liked, didn't like. Sometimes it's on paper, sometimes it's electronic. It just depends." (T1)

"Usually because I work with certain districts, we can do a follow-up session. So, if that's an option, absolutely we will do a follow-up. Sometimes, a follow-up is actually not me coming back, that might be me working with an instructional coach in this school." (T2)

4. Discussion

This study aimed to answer two research questions: (1) How do PD facilitators obtain feedback about the effectiveness of their PD sessions? and (2) to what extent is feedback an integral part of PD planning? The results for each question are discussed next.

4.1 How the PD Facilitators Obtain Feedback

One-on-one interviews with the professional development facilitators showed that PD facilitators obtained feedback, about the effectiveness of their PD sessions, from teachers participating in the PD sessions, from the instructional coaches at schools, and the school administrators. Prior to facilitating a PD, facilitators sought feedback from the schools about the type of professional development they want. They used technology to obtain feedback through surveys first, and then visited the schools to check with the teachers about their

specific instructional needs. PD facilitators used this initial feedback for planning purposes. They wanted their PD sessions to address teachers' needs rather than delivering generic, general PD. During the PD sessions, PD facilitators closely observed teachers and created various in-session opportunities for the teachers to share their thoughts about the PD sessions. In turn, the facilitators used the feedback they obtained during the PD sessions to check if the teachers were engaged, and if they found the PD sessions satisfactory. They used the teachers' feedback to make timely and necessary adjustments in their PD delivery. After the PD sessions, the PD facilitators communicated with the instructional coaches and administrators at schools to check the effectiveness of the PD they delivered. They visited schools and observed teachers' instructional practices in their own classrooms. PD facilitators also used follow-up surveys for teachers to obtain post-sessions feedback.

The findings showed that PD facilitators obtained feedback for the PD sessions before the sessions began, when they delivered the PD, and after the PD sessions. PD facilitators used various means to obtain feedback: they used technology to give out surveys, they observed the participant teachers during the PD sessions and in their own classrooms following the PD delivery, they organized meetings with the teachers in person at schools, and the PD facilitators also communicated with the instructional coaches and the administrators at schools.

The findings of this study are in line with the research (Hertz et al., 2022; Darling-Hammond et al., 2017; Bates and Morgan, 2018; Nese et al., 2020; Nordgren et al., 2021) available in the relevant literature to underline that the feedback is an essential part of teacher professional development. For example, Darling-Hammond et al. (2017) stated in their study that feedback is an indispensable part of effective PD. Bates and Morgan (2018) listed feedback among the elements of effective PD. The researchers (Hertz et al., 2022; Bates and Morgan, 2018) stated that, as opposed to one-time PD sessions, the sustained PD efforts promoted feedback continuously. Nese et al. (2020) used participant feedback actively to ensure the effectivity of online PD efforts. Nordgren et al. (2021) explored the teacher PD and emphasized the importance of feedback, both to students while teaching and to the colleagues as part of the professional learning community.

Some researchers (Hertz et al., 2022; Bates & Morgan, 2018; Darling-Hammond et al., 2017; Dickinson & Brady, 2006; Snyder & Wolfe, 2008) pointed out that feedback is among the key characteristics of effective PD. Feedback ensures relevance to the needs and practices of teachers in the classroom and it makes the PD more sustainable

4.2 Feedback as an Integral Part of PD Planning

Findings of this study showed that the PD facilitators obtained and used feedback for the PD sessions at three stages of their delivery: before the PD sessions started, during the PD delivery, and following the PD sessions. As stated by one of the PD facilitators interviewed, the feedback obtained prior to the PD sessions was used for planning purposes: "Well, planning, so I'd like to start with a needs assessment. I think that's probably myremembering. Just talking and looking at data; so figuring out what is it that they need; coming up with a plan; using my knowledge around engaging adults and motivation." (T1)

PD facilitators planned to address the instructional needs of the participant teachers, so, the facilitators wanted to design a PD delivery with relevant content, not just a generic one. The content relevance is included among the key features that make teacher PD effective (Hertz et al., 2022; Darling-Hammond et al., 2017; Desimone, 2009; Kang et al., 2013; Kennedy, 1998; Mundry, 2005; Shulman, 1998; Thurlings & den Brok, 2017). Thus, considering the effectiveness of PD relies on a relevant content, it can be said that feedback seems to be an integral part of PD planning, based on the findings of this study.

5. Conclusions

Teachers' working hours at schools include considerable amount of PD. Organization for Economic Cooperation and Development TALIS survey (2018) showed that all teachers were required to have professional development within their working hours in all participating countries. Feedback in teacher professional development is needed in order to ensure that the valuable time teachers spend in PD sessions is productive and fruitful and teachers are more adept in their instructional practice. This, in turn, promotes learning and maximizes

students' academic performance. Also, feedback makes PD a training opportunity that teachers look forward to rather than generic sessions that they begrudgingly attend.

Facilitators may elicit feedback in different forms in PD. To ensure the PD is planned to address the needs of the teachers, pre-PD interest surveys may be used before the PD sessions begin. Involving the participant teachers in the PD process and enabling a continuous check and feedback cycle may be useful for facilitators. Facilitators may use such feedback to tune their PD sessions, based on immediate responses teachers provide. Following the PD sessions, feedback may be obtained through surveys again to check the teachers' opinion of the PD sessions. Some online tools such as blogs may be set up to enable teachers to have a continuous discussion, thus feedback, on PD. Feedback about the effectiveness of PD may be elicited not only from the teachers but also from administrators and instructional coaches, in addition to checking the student learning.

Thus, surveys may be the tools available to the facilitators to obtain feedback about the PD. Future studies may focus on the role of feedback among teachers to make professional development more effective, how collaboration among teachers in PD contribute to providing feedback through digital tools, and the facilitators' follow-up strategies to obtain feedback on PD from teachers and the schools

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