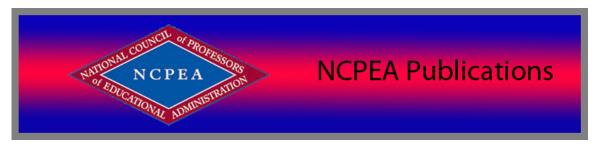# Thinking on Your Feet: Principals' Reflection-in-Action[*]

John Bond

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Abstract

In this study the reflection-in-action of experienced school principals was investigated. While reflection-on-action occurs after-the-fact, reflection-in-action is situated in the context of action. This qualitative study explores what principals think about as they are in the midst of dealing with an unexpected public confrontation. The purpose of this study was to identify what principals reflect on in the moments following a verbal attack, response strategies and techniques they would consider, and why they choose certain responses and behaviors. Fifteen principals were interviewed regarding what they would be thinking about if they were rudely confronted by an angry teacher during a faculty meeting. Principals were asked to describe their thoughts prior to responding in such a situation, what responses they would consider, and why they would choose certain actions over others. Four themes and 13 categories were identified in the analysis of 91 separate statements. The findings lend support to Donald Schön's (1987) theory regarding how professionals mentally process during surprise situations and have applicability to professional development for pre-service and entry level principals.

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1 Sumario en espanol

En este estudio la reflejo en acción de directores experimentados de escuela fue investigada. Mientras reflejo en acción ocurre después el hecho, la reflejo en acción es situada en el contexto de acción. Este estudio cualitativo explora lo que directores piensan de como están en el medio de tratar con un enfrentamiento público inesperado. El propósito de este estudio fue de identificar lo que directores reflejan en en los momentos que siguen un ataque verbal, estrategias de respuesta y técnicas que considerarían, y por qué ellos escogen ciertas respuestas y las conductas. Quince directores fueron entrevistados considerando lo que estarían pensando de si fueron confrontados groseramente por un maestro enojado durante una reunión de facultad. Los directores fueron pedidos describir sus pensamientos antes de responder en tal situación, qué respuestas que considerarían, y por qué ellos escogerían ciertas acciones sobre otros. Cuatro temas y 13 categorías fueron identificados en el análisis de 91 declaraciones separadas. Las conclusiones prestan apoyo al Donald Schön (1987) teoría con respecto a cómo profesionales procesan mentalmente durante situaciones de sorpresa y tienen la aplicabilidad al desarrollo profesional para el pre-servicio y la entrada directores planos.

> NOTE: Esta es una traducción por computadora de la página web original. Se suministra como información general y no debe considerarse completa ni exacta.

2 Introduction

The concept of reflective practice can be traced back to John Dewey who proposed that individuals should reflect upon professional actions and consequences (Dewey, 1933). Building on Dewey's theory, the seminal work of Donald Schön has underpinned research on reflective practice over the last two decades (Zhao, 2003). Both Dewey (1933) and Schön (1983) theorized that reflection is situated in action, which emphasizes its practical nature and potential usefulness for professionals. Schön (1983, 1987) believed professionals need to reflect *on* action after having done something, as well as, reflect *in* action while actually doing it. It is the latter, reflection-in-action, that is the focus of this investigation.

Schön (1983) stated that "...competent practitioners usually know more than they can say. They exhibit a kind of knowing-in-practice, most of which is tacit" (p.vii). In applying this concept to the workplace Schön (1987) used the term *professional artistry* to refer to "...the kinds of competence practitioners sometimes display in unique, uncertain, and conflicted situations of practice" (p. 22). When familiar routines present themselves, professionals draw on a reservoir of knowledge, or *knowing-in-practice*, and often act without conscious reflection. However, experiences frequently contain an element of surprise (Schön, 1987), which causes a professional to either reflect *on* action by pausing to consider the situation, or reflect *in* action by reflecting "...in the midst of action without interrupting it" (p. 26). Ferraro (2000) stated that reflection in and on action should be cyclical in nature with the outcomes of one informing the other. In recent literature the terms *on-line* and *off-line* are frequently used to describe metacognitive methods that occur during (on-line) or after (off-line) an event (Bannert & Mengelkamp, 2008).

Reflection-in-action is an immediate process that occurs in the context of action without after-the-fact analysis (Schön, 1987; Waters, 2005). Similar to Schön's example of the medical doctor's experience where "...about 85% of the cases... are not 'in the book'..." (1987, p. 35), the school principal is regularly confronted with situations that require an immediate response, often with the eyes of others on them. It is this real-time reflection on what one knows that is the focus of the current study.

3 Review of Literature

The literature on metacognition is substantial, including extensive attention to reflection on practice by students, teachers, principals, and other professionals (Black & Wiliam, 1998; Bond, Evans, & Ellis, 2011; Costa & Kalick, 2000; Dignath & Büttner, 2008; Scriven, 1991; Swartz & Perkins, 1989; Schön, 1983, 1987; Wiliam & Thompson, 2008). Flavell (1979), whose work profoundly influenced research on reflection, suggested that knowledge of strategy, task, and self are included in metacognition. However, there is a

disparity of scholarly articles about the reflection of school principals and few about their reflection during situations that require immediate response (McCotter, 2009; Wright, 2008).

Hart (1990) argued that "...thinking well, especially developing the habit of reflecting on what one knows before and while acting, improves the quality and creativity of choices and eventually contributes to the knowledge available in subsequent choices" (p. 153). Knowing-in-practice provides administrators a resource of experience to draw upon when they face situations requiring them to "think on their feet," which simply describes the concept of reflection-in-action.

3.1 Reflection-in-action

Reflection-in-action occurs without the luxury of time to carefully weigh underlying factors of a situation. To explain reflection-in-action, Schön (1987) used the example of how jazz musicians improvise in "...an immediate and wordless response to the unexpected ...in which participants invent on-the-spot responses" (p. 31). Similarly, professionals, such as doctors, lawyers, managers, and principals routinely improvise as they respond to unexpected events and situations. Swartz and Perkins (1989) described this as *tacit metacognition*, which they theorized as preceding progressive steps of awareness, strategic, and reflective thinking. Schön (1987) stated that reflection-in-action "...hinges on the experience of surprise" (p. 56), which causes a person to reflect on what they know about a situation before responding in an "...on-the-spot experiment in which a new and tentative understanding is tested" (Schön, 1987, p. 56). Unexpected situations, whether pleasant or unpleasant, are typically responded to in a spontaneous and routine manner (Seo & Barratt, 2007) that is "...in some measure conscious..., but may not occur in the medium of words..." (Schön, 1987, p. 56).

While the inclusion of reflective practice in principal preparation programs has been strongly advocated (Leithwood, Louis, Anderson, & Wahlstrom, 2004; McCotter, 2009; Osterman, 1998), the research literature related to principal reflection is lean (Day, 2000; McCotter, 2009; Osterman & Kottkamp, 2004; Wright, 2008). It is commonly accepted that experienced principals are better decision makers than beginning administrators (Rich & Jackson, 2006) and over time they "...build up a collection of images, ideas, examples and actions that they can draw upon" (Smith, 2001, p. 8). However, the research literature on the tacit knowledge that principals automatically access is still emerging.

Other Professions. Silver (1986) suggested that the field of educational administration would benefit from developing a codified record keeping system similar to those employed in professions such as "...architecture, engineering, law, and medicine..." (p. 161). "A professional's knowing-in-action is embedded in the socially and institutionally structured context shared by a community of practitioners" (Schön, 1987, p. 33). For example, current research on hospital emergency room procedures has led to development of checklists and protocols that have become accepted practice (Croskerry, Wears, & Binder, 2000). Metacognitive strategies are also being taught to resident physicians to improve decision-making (Bond et al., 2004). Others (Boud & Walker, 1998; Ferraro, 2000), however, caution that a trend toward using checklists to solve urgent matters will not be effective in educational settings where rigid protocols may not fit diverse situations.

3.2 Values and Trust

The connection between values and behaviors is prominent in the literature on school leaders (Begley, 2006; Goldman, 1998; Lazaridou, 2007). Research on problem solving has shown that when faced with complex situations, school leaders rely upon personal values to influence their responses (Leithwood & Steinbach, 1995; Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993). In emphasizing the importance of a leader's values, Burns (1978) stated that outstanding managerial performance is characterized by the presence of honesty, fairness, equal respect for individuals, autonomy, and democratic governance. Similarly, Begley (2006) proposed that self-knowledge, moral reasoning, and sensitivity to others are prerequisites for authentic leadership by school principals. Begley (2006) found four motivational factors that influence principals' decisions—self-interest, consensus, consequences, and ethics— and suggested that principals need to reflect on them in order to understand their intentions.

The literature is rich with research regarding the trust relationship between leaders and subordinates (Bryk & Schneider, 2002; Ciancutti & Steding, 2000; Hsu & Mujtaba, 2007; Turk et al., 2010). Within this construct a substantial and growing body of research exists focusing on the principal-teacher relationship (Brewster & Railsback, 2003; Bryk & Schneider, 2002; Gimbel, 2003; Hallam & Hausman, 2009; Tschannen-Moran & Hoy, 2000). Tschannen-Moran (2001) found that teacher-principal collaboration was strongly related to trust. Effective relationships among school stakeholders—principals, teachers, and parents—are pivotal for schools to be successful (Bryk & Schneider, 2002; Hallam & Hausman, 2009). Relationships of trust between teachers and principals take time to develop (Ciancutti & Steding, 2000), yet are essential for collaboration (Tschannen-Moran, 2001). "Clearly, in this era of accountability and the pressures that accompany it, there is a premium placed on the interpersonal skills of school leaders" (Hallam & Hausman, 2009, p. 403).

Several factors are seen as critical in the development and sustenance of trust relationships between teachers and principals. These include a principal's approachability and listening skills (John & Taylor, 1999), the absence of suspicion in the principal's motives (Ciancutti & Steding, 2000), sensitivity to others (Begley, 2006), and equitable treatment of staff members (Burns, 1978). According to Turk et al. (2010), "When people are honest, not only with each other, but also with themselves, the bonds of trust become that much stronger" (p. 1).

4 Purpose and Research Questions

The purpose of this study was to investigate what principals reflect on in the brief moments between an unexpected verbal attack in public and when they respond. This study was guided by the following three research questions which focus on how principals reflect-in-action, their access of knowledge-in-action, and their underlying values:

1. What do experienced principals reflect on during an unpleasant event?
2. What strategies or techniques do experienced principals employ during unpleasant events?
3. Why do principals choose to respond in certain ways during unpleasant situations?

By identifying themes that emerge from the research questions, this study aimed at contributing to the body of research on how principals reflect in pressured situations, how they reflect-in-action.

5 Method

5.1 Participants

Following approval of the research project by a university Institutional Review Board, criterion sampling strategy was used to recruit 15 experienced public school principals for this study. Participants known as successful principals were identified by consulting with school leaders and university professors. The experience level of the participants ranged from 5 to 20 years as an administrator. Of the 15 participants, 7 were from the elementary level and 8 from secondary, 9 were female and 6 were male, and 2 had recently been promoted to central office positions. All of the principals serve in the greater Seattle area.

5.2 Procedures

Open-ended, semi-structured interviews were conducted with individual participants at their place of work. Interview questions were designed to collect data related to each of the three research questions. The interviews were structured so that participant responses could be analyzed to identify emerging themes and categories. Collected data was transcribed following each interview to facilitate the coding of responses, which also contributed to subsequent interviews. While the first few interviews were recorded, as recommended by Creswell (1998), the researcher abandoned this strategy in favor of note-taking when interviewees expressed discomfort.

Interview Questions

1. Have you experienced a similar situation during a faculty meeting?
2. Describe your first thoughts following the described verbal attack?
3. How would this make you feel? Describe your emotional reaction.
4. What factors and/or issues would you be considering?
5. What would staff members see you doing in the moments following the ambush?
6. What actions would you consider? Explain why.
7. How would you determine what to do?
8. How would you respond—verbally? Non-verbally?
9. How would you know whether the problem was large or small?
10. How would teachers react in such a situation?
11. Would staff climate be affected by such an event?
12. How would you bring the episode to a close?

Table 1

The interview questions (see Table 1) were designed to elicit information about what principals think about when facing an unexpected "ambush" situation during a faculty meeting. The interviews focused on a scenario in which the principal was conducting a faculty meeting when he or she was rudely interrupted by an angry teacher. The following statement was read to participants after which 12 open-ended questions were used to guide the interview (see Table 1):

5.3

Picture yourself leading a faculty meeting when unexpectedly a teacher angrily attacks you verbally. There is a sudden silence and you can feel all eyes in the room turn to you. What thoughts are going through your mind in the seconds immediately following the verbal attack?

Principals were asked to describe their thoughts prior to responding in such a situation, what responses they would consider, and why they would choose certain actions over others. The researcher used an interview guide following each interview for notes, initial category coding, and identification of emerging topics to be included in subsequent interviews. Thus, informal data analysis occurred throughout the interview phase of the investigation and influenced the direction of the study. Follow-up contacts with participants were made to verify data and to include topics not discussed. After 15 interviews the categories appeared to be established with little new information being identified.

6 Results

Four themes and 13 categories were identified in the analysis of data using a phenomenologicalapproach. The themes—Self Talk, Strategies, Values, and Trust— were labeled to describe what a principal would be thinking about in the approximate 20 to 30 seconds between a verbal attack and his or her response. Ninety-one separate statements were sorted into 13 categories that comprised the themes. The data describe *what* principals do in response to an unexpected event and *why* they make these choices. The first two themes, Self Talk and Strategies, include the *what* statements and are related to the first two research questions. Related to the third research question, the *why* patterns were coded in the Values and Trust themes. The descriptive data for the four themes are displayed in Table 2.

Descriptive Statistics: Reflection-in-action themes

Theme	Incidence	Percentage
Self Talk	27	29.67
Strategies	34	37.36
Values	15	16.48
Trust	15	16.48
Total	91	99.99

Table 2

6.1 Theme One: Self Talk

The first theme includes statements that describe the reflective thoughts principals would have in response to an unexpected verbal attack during a staff meeting. Responses coded as Self Talk made up 30% of the data, which was expected considering the focus of the interview questions. Three categories (managing surprise, poise, and assessing scope) were identified in the data analysis for this theme.

Managing surprise. Seven of the fifteen participants described how they would mentally process the initial shock of being verbally attacked in public. These descriptions were coded in the Managing Surprise category. As the interview questions emphasize (see Table 1), identifying what principals reflect on as potentially volatile situations unfold is the primary purpose of this investigation. An example of a principal's response that was coded for this category follows:

6.1.1

I need to remain calm and remember that others are watching me and keying off my behavior. Even though I want to react in kind, I know that this would make the situation worse. I don't want to react in anger, even though I am feeling angry and disrespected.

Statements included in Managing Surprise were often similar to those coded for Poise.

Poise. The Poise category includes the comments of 10 participants that describe the importance of a principal maintaining their composure in the face of a verbal attack. Being "poised under fire" was something these participants stated they would instantly think about in such a situation. All seven of the principals whose comments were coded in the Managing Surprise category, also made statements regarding the importance of exhibiting poise in such situations. Following is an example of a principal's reflection about maintaining composure: "I would make eye contact with the person making the attack and try to act poised. Showing my emotions makes me feel out of control, so it is important that I act calm."

Assess scope. Included in the Assess Scope category are 10 coded statements that referred to principals' efforts to determine how serious a problem he or she was facing. In the first seconds following an ambush these participants stated they would immediately reflect on the depth of the problem. Several of the participants also made comments that were coded as Managing Surprise (6 participants) and Poise (5 participants). One principal's response was simply, "Where did this come from? What is driving this outburst?" Another example from this category captures the need for a principal to determine how broad a concern is among staff, which was a clear pattern in the data:

6.1.2

It depends on how I read the staff. If I read it a one person issue and the staff is behind me, I will respond with confidence. However, if I sense it is an issue with many staff, my response will be with inquiry.

Assess Scope is related to *Scanning*, a category in the Strategies theme, which describes how principals assess the depth and breadth of staff opinion (Back, Furniss, & Blandford, 2007).

6.2 Theme Two: Strategies

The Strategies theme includes the actions a principal considers when facing an unpleasant situation. While both the Self Talk and Strategies themes focus on how a principal would deal with a surprise situation, Strategies deals more with practiced techniques and expertise that immediately follow the initial problem analyses described in the Self Talk categories. The five categories that comprise Strategies (scanning, acknowledge, engage others, ask questions, and delay) included the highest number of coded responses in this study (see Table 2).

Scanning. Scanning is a pattern of principal comments that described the reading of non-verbal cues of staff members to determine the scope of a problem (Back, Furniss, & Blandford, 2007; Schön, 1983; Smith, 2001). Related to the Assess Scope and Ask Questions categories, Scanning describes the specific techniques that 8 participants said they would use as they were formulating a verbal response. All 8 of the principals who identified Scanning techniques also made separate comments that were coded in the Assess Scope category. An example of a Scanning response follows:

6.2.1

I would scan the room and look at everyone while the person is responding to my first question. Getting a sense of where the majority of the staff is on the issue would be of vital importance and would guide what I do.

Similarly, another principal described scanning by stating, "I would look for nonverbal cues from leaders on the staff. Their eye contact, facial expressions, head nods, and eye rolling would quickly tell me how much trouble I was in."

Acknowledge. The Acknowledge category includes statements in which a principal's initial interaction with the disruptive person would be to acknowledge their comment in a non-confrontational manner. Acknowledgement was identified by 7 participants identified as an appropriate response in such a situation. For example, one principal stated that she "... would acknowledge the person's comment and emotion, and ask for further clarification. I would try to validate their underlying value, such as, 'I know you are trying to make it better for kids.'"

Engage others. The third category, Engage Others, includes statements where the principal would reflect on broadening the discussion to include other staff members. Often described as an option following assessing the scope of the problem, this strategy was identified by 6 of the 15 participants. A particularly interesting comment follows in which one principal described an actual situation where he sought to engage others that allowed something to be communicated by a staff member in stronger terms than he felt he should use in that setting:

6.2.2

A strong teacher leader once said to a staff member, "You are out of line with that comment..." It was a pivotal moment in a meeting and her comment helped me out in a difficult situation. She said something that I knew I couldn't say with the full faculty looking on. I sent her a thank you card.

For this experienced principal the memory of that episode would quickly come to mind in similar situations. Another principal stated simply, "I would broaden the discussion to the entire staff."

Ask questions. The third category in the Strategies theme, Ask Questions, is comprised of statements in which principals describe how they would seek further information from the concerned individual so that all present could better understand the issue. Typically, this reflection was seen as preceding efforts to engage the broader faculty in discussion. Of the 7 participants who identified Ask Questions as an appropriate strategy, separate statements were also coded as Scanning (4), Acknowledge (3), and Engage Others (3), which is an example of conceptual linkage that was found among the categories and responses in this study. As the following principal quote exemplifies, responses coded for one category may be related to those in another: "I would ask the person to explain further in order to buy some time so I can settle down and get beyond the shock of a public attack." This principal described asking questions as a way to slow down the

action so she could mentally process the shock of the unexpected outburst, which also fits the pattern of comments coded as Managing Surprise.

Delay. The fifth category in Strategies, Delay, includes strategies a principal would consider in order to table the issue for another time. Delay was reported by 6 participants as something they would consider as an option if a difficult staff meeting situation unfolded. Among the comments coded for the Delay category is the following: "I always have a backdoor..." which this principal explained as a practical technique for delaying complex issues for future discussion.

6.3 Theme Three: Values

A pattern of comments emerged through the interviews in which principals referred to personal or professional values and ethics to explain why they would think or act in a certain way. This theme was labeled Values and along with a theme called Trust, which will be described below, includes comments made during interviews that provide rationale for principals' reflection-in-action. Typically embedded within statements regarding *what* they would do, Values (and Trust) statements provided reasons *why* they would consider certain responses. Three patterns of responses were identified as categories for the Values theme—beliefs, dignity, and humility.

Beliefs. Included in the Beliefs category are statements made by 3 participants that referred to personal values and/or professional ethics. Each of these principals also made separate statements that were coded in the Dignity, Humility, and Authenticity categories. The following quote is an example of a statement that identifies a relationship between beliefs and prescribed techniques:

6.3.1

You can add the "bells & whistles" (strategies and techniques), but people lead from their core; who they are. When you know who you are as a leader—as a person—you can then think about how you should respond to difficult situations.

Another principal stated, "I believe in shared leadership. There is safety in it; someone always has your back."

Dignity. The concept of dignity was identified by 5 principals as providing rationale for a thought or action. Protecting the dignity of staff members, especially the individual who is speaking out in anger, was emphasized by these participants. The following quote is an example of a principal's concern about dignity: "I want to save face for both of us. Face saving is important for all in the room. Even crackpots need to have dignity."

Humility. The third category in the Values theme, includes statements that relate to a humble, service-minded response to conflict. These comments were often similar to codings in the Trust theme, but referred more directly to a personal style. Staying humble as they faced a difficult situation in a staff meeting was identified by 7 participants as an element of their self-talk in a crisis situation. One participant said, "I don't know everything. Being honest about that—if I just name it and say it—is important for a staff to witness. When you try to pretend you are something you are not, they see through it." Another participant stated, "This is an opportunity to show everyone in the room your willingness to listen, your care, your non-defensiveness, and your vulnerability." Both of these quotes were embedded within descriptions of why the principals would act in certain ways and were closely related to those identified for the Trust theme.

6.4 Theme Four: Trust

Trust that staff members feel toward the principal was frequently mentioned by participants as an important dynamic on which they would reflect when confronted at a staff meeting (see Table 2). This theme emerged during the interviews as the data revealed that principals do indeed reflect on trust issues as they "think on their feet." Two categories were identified in the Trust theme—Authenticity and Leadership Capital.

Authenticity. Authenticity refers to the principal's forthrightness and sincerity throughout the staff meeting episode, as opposed to a reliance on prescribed techniques that could be seen as contrived. This

leadership quality was mentioned by 9 of the 15 principals interviewed in this investigation. As one participant stated, "When trust is present between a principal and staff the principal has more latitude on how to respond to tricky issues and makes them less serious when they do occur." Another principal explained, "If I am being transparent, vulnerable, and open with staff over time, situations like this one are avoided and are less serious when they do occur."

Leadership Capital. Public conflict was identified by 6 participants as a high stakes matter for principals that can enhance or erode one's ability to lead. While all six of these principals also made statements that were coded in the Authenticity category, separate statements labeled as Leadership Capital focused specifically on potential long-term consequences of a staff meeting conflict. Included in this category were statements regarding how such situations present risk for principals and put under a spotlight how they handle their position power. The risk faced by the principal as a potential conflict unfolds is captured in the following quote:

6.4.1

Thirty seconds to a minute can enhance, reinforce, or erode leadership capital. I usually can recognize such situations and treat them accordingly. When I miss them, though, I pay a price. Trust issues need to be addressed right then in front of the group so teachers don't go back to their rooms feeling betrayed.

Interestingly, these principals stated that trust would be enhanced by not accessing their position power as a response to a public attack. Rather than confronting the disruptive individual in public, these principals stated that a non-confrontational response in which the principal listened calmly and then facilitated discussion among the entire group. While two participants stated that they would confront in public a chronic saboteur, both clarified that they would be expected to do so by the group. In general, the participants stated that the risks of applying position power make a choice to facilitate a democratic process most appropriate. The following quote exemplifies the statements in the Leadership Capital category:

6.4.2

Escalating an interaction to a win/lose point damages relationships, trust, and reputations. Even if I win the argument—and I would as the boss—I have lost. In addition, I may have lost the support of allies who do not respect my behavior. I try to find an alternative that does not create two losers, me being one of them.

Applying power in a public setting was seen as highly likely to backfire and either exacerbate the current problem or create a new one. While several principals elaborated that they would follow-up in private with a problem staff member, a clear pattern supported avoiding doing so in public.

7 Discussion

Successful principals, similar to the 15 interviewed for this study, learn on the job how to deal with emergent situations in which they must take action without opportunity for lengthy reflection (Smith, 2001). The findings of this study respond to the problem that Eraut (1994) posed regarding time pressured decisions: "...when time is extremely short, decisions have to be rapid and the scope for reflection is extremely limited" (p. 145). Principals learn through trial and error how to maintain poise in the heat of a moment while they assess the situation and decide how best to respond. This occurs in a matter of seconds and is often pivotal for a leader's skillful management of potentially disruptive situations. It is a practiced skill set that experienced principals draw on to manage and diffuse conflict on the verge of eruption. In this study four themes were identified in the analysis of 91 coded responses from 15 experienced principals. Within each theme, patterns of responses were found that further explained the phenomenon of reflection-in-action.

The results of this investigation seem to warrant three kinds of conclusions in response to the research questions: conclusions about what principals reflect on during unanticipated events, how they choose to respond based on that reflection, and why they select certain actions over others. Discussion follows regarding these three questions related to each of the four themes of data that was collected.

The Self Talk data are consistent with Schön's (1987) description of how individuals mentally process surprise events. Maintaining poise and clear thinking in an unexpected situation stood out as priorities among the interviewed principals. As Seo and Barrett (2007) stated, "...individuals can experience intense feelings during decision making while simultaneously regulating possible biases induced by those feelings..." (p. 923). Once they had taken a few seconds to "gather their wits," nearly all of the participants described how their thoughts would immediately turn to trying to figure out the magnitude of the problem. Throughout the study principals explained how carrying on a conversation with themselves helps them through a challenging situation, a phenomenon according to Chohan (2010) that shapes perceptions and influences behavior. Similar to the findings of Back, Blandford, and Curzon (2007) in their simulation of a fire engine dispatch center, the results of this study show that experienced principals immediately reflect on their professional experience, or knowing-in-practice, as they decide how to respond. In addition to reflecting on their own understanding of the issue, their knowledge-in-practice (Schön, 1987), principals quickly made decisions about the actions they would take (Eraut, 1994).

The largest number of response codings (34) described the strategies participants said they would employ during a staff meeting disruption. This data supports the theory that individuals access accumulated professional knowledge during unanticipated events (Boud, Keogh, & Walker, 1985; Chohan, 2010; Schön, 1987). The findings are consistent with the research on cognitive resilience (Back, Furiss, & Blandford, 2007) where individuals under stress "...generate new strategies in-action in response to regular disturbances" (p. 1). The comparatively high number of strategy responses and their focus on specific kinds of actions indicate the presence of an accepted body of knowledge for principal practitioners. (See Table 2).

Two themes of data, values and trust, identified the reasons participants would select particular actions over others. Together these two themes account for 33% of the total coded responses, which indicates that reflecting on underlying rationale is common behavior for principals. The findings lend support to recent research on principal-teacher trust and its impact on citizenship behavior in a school (Elstad, Christophersen, & Turmo, 2011). Perhaps, the strongest finding in the current study is the pattern of affective statements in which principals explained how their personal and professional style, consideration for others, honesty, and humility were essential leadership factors. The findings lend support to recent research on principal-teacher trust and its impact on citizenship behavior in a school (Elstad, Christophersen, & Turmo, 2011). A synthesis of this data underscores the importance of a principal's consistency in modeling the leadership behaviors that Burns (1978) articulated over thirty years ago. When a principal handles a potentially explosive public situation with poise, authenticity, collaboration, and humility, while protecting the dignity of all present, his or her leadership status in the group is enhanced.

While only 15 experienced principals were interviewed in this investigation, redundancy of responses in the last few interviews indicated saturation of the topic. This is a strength of the present study, but the findings may not generalize beyond the narrow faculty meeting scenario that was the focus of the interviews. All of the interviews and data analyses were conducted by the primary researcher, whose personal experiences as both a public school principal and university professor brought understanding and credibility to the interview experience. Inter-rater reliability, therefore, was not a concern in this study; however, researcher bias could be an issue in considering the validity of the results. In addition, the criterion sample of 15 experienced principals was appropriate for the guided interview approach of data collection. The reliability of participant descriptions of how they would respond in a high-pressure situation is a limitation of this study. The interviews were conducted in a relaxed setting without the stress and emotion a principal would face in an actual situation. Generalization of the results of this qualitative study should be done with caution; however, the patterns of data suggest rich opportunity for further research on the topic of principal reflection-in-action.

The choice to not tape-record the interviews may be a limitation to this study (Creswell, 1994; Weiss, 1994). However, participant discomfort caused by the presence of an audio-recorder during the first few interviews was not a concern in subsequent interviews. It may be that quantity of data was traded for increased participant candidness.

The results of this investigation offer direction for future research on how principals reflect during unexpected events. Further research on how reflection-in-action is influenced by personal and professional beliefs

and values needs to be conducted to better understand the motives that underlie leadership behavior. Although participants in this study emphasized the importance of authenticity in their behavior, consistent with the cautions of some experts (Boud & Walker, 1998), it will be important in future research to consider the use of protocols being studied in other professions.

The pattern of findings in this study suggests that beginning administrators would benefit from training on the topic of reflection-in-action. University preparation programs, professional organizations, and school district mentoring programs should include both content and practice regarding dealing with unexpected, unpleasant, and public situations (Ferraro, 2000; Rich & Jackson, 2006). This is consistent with research on resilience (Back, Furniss, & Blandford, 2007) that emphasizes the effectiveness of developing personalized cues as cognitive strategies.This investigation supports the commonly held view that every principal occasionally faces public situations in which they must "think on their feet." Pre-service and beginning principals can learn from the body of professional knowledge that has been accumulated by researchers, educational leadership professors, and most importantly, experienced principal practitioners.

The contribution of this study has been to document and describe how experienced principals reflect as they deal with a faculty meeting disruption. Such reflection-in-action includes managing their emotions, understanding the scope of the problem, considering possible actions, and the personal and/or professional values that drive their choices. It is a sequence of reflective practice that has many applications for the school principal, and thus, is worthy of further study.

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