Teachers as Reflective Practitioners: From Individualism to Vygotskian Social Constructivism

Muhammad Athar Shah

Lusail University Qatar, University of Toronto

The paper presents a critical review of major works on reflective practice in teaching that mainly define reflection as a technical and isolated process, taking place in an individual's mind. Critiquing the cognitive nature of reflective practice promoted in mainstream research, the paper directs attention to the increasing recognition of sociocultural factors in teacher professional learning, and highlights the significance of reflection as a social practice. Starting with the ideas of John Dewey on reflective practice for teachers, the paper delineates Schön's successive works on the subject, followed by a discussion of Wallace's reflective model. The final part of the paper describes how Vygotsky's sociocultural theory provides a theoretical framework for teachers to effectively engage in reflective practice by moving from individualism to social constructivism in their efforts to enhance their professional competence.

L'article présente un examen critique des principaux travaux sur la pratique réflexive dans l'enseignement qui définissent principalement la réflexion comme un processus technique et isolé, se déroulant dans l'esprit d'un individu. Critiquant la nature cognitive de la pratique réflexive promue par la recherche dominante, l'article attire l'attention sur la reconnaissance croissante des facteurs socioculturels dans l'apprentissage professionnel des enseignants et souligne l'importance de la réflexion en tant que pratique sociale. Partant des idées de John Dewey sur la pratique réflexive pour les enseignants, l'article décrit les travaux successifs de Schön sur le sujet, pour ensuite discuter du modèle réflexif de Wallace. La dernière partie de l'article décrit la mesure dans laquelle la théorie socioculturelle de Vygotsky fournit un cadre théorique permettant aux enseignants de s'engager efficacement dans une pratique réflexive en passant de l'individualisme au constructivisme social dans leurs efforts pour améliorer leur compétence professionnelle.

Since the foundational works of Schön (1983, 1987), reflection has become an important component of teaching and teacher professional learning (Beauchamp, 2015). Recognizing the significance of reflection for teachers, the Organization for Economic Co-operation and Development (OECD, 2005) has also declared it "the heart of key competencies" (p. 8). One classic instance of the tremendous interest in reflection is its numerous definitions posited by researchers and practitioners from across the epistemological spectrum. It might be interesting to read the 55 different definitions of reflection collected by Beauchamp (2006) from the times of Dewey (1933) up to 2006. Along with this range in definitions, numerous tools, and techniques, such as the use of critical incidents, autobiographies, metaphor analysis, peer-observation, journal writing,

portfolios, Socratic discussions (Appleby, 2003), story-telling, and reflective essays, have been developed to engage teachers in the process of reflection (Norsworthy, 2008, p. 35).

Notwithstanding the abundance of research on reflection and reflective practice, Cole (1997) contended that "overall we have not helped teachers be reflective practitioners" (p. 21)—an argument further corroborated by Marcos et al. (2009) in their comprehensive review study. Underscoring the grim situation of reflection as it is practised, Marcos et al. (2009) stated that "only 0–10% of teachers are capable of carrying out the task of reflecting on practice" (p. 195). Along the same lines, Walsh and Mann (2015) argued that reflection, on the one hand, is lacking a "corresponding knowledge base that demonstrates how … [it] *gets done*;" on the other, it is proliferating with its "*instrumental* interpretations" (p. 351), which "heavily focus on the individual at the expense of collaborative options" (p. 352). Hence, voices in the literature have justifiably bemoaned inadequacies in the concept of reflection and the scarcity of sound methods to effectively engage in the process of reflection (Russell, 2013). Worse still, there is an absence of a coherent structure that allows teachers or learners to document the reflective process when they are able to solve problems (Chitpin & Jones, 2015).

While highlighting the need for further research on the subject, the current paper offers a critical review of major works on reflective practice in teaching that mainly define reflection as a technical and isolated process, taking place in an individual's mind. More importantly, the paper directs attention to the increasing recognition of sociocultural factors in teacher professional learning, underscoring the significance of reflection as a social practice. Starting with the ideas of John Dewey on reflective practice for teachers, the paper delineates Schön's successive works on the subject, followed by a discussion of Wallace's reflective model. The final part of the paper describes how Vygotsky's sociocultural theory provides a theoretical framework for teachers to effectively engage in reflective practice by moving from individualism to social constructivism in their efforts to enhance their professional competence.

Dewey's Conceptualization of Reflective Practice

In the late modern age, beginning around the First World War, Dewey (1933) can be considered the father of the idea of reflective practice for teaching professionals. Despite popular acceptance of Dewey's ideas about progressive education, his exposition of reflection could not gain acceptance for teacher learning and development until Schön published *The Reflective Practitioner* in 1983 (Nelson & Sadler, 2013). Dewey (1933) defined "reflection" as an "active, persistent, and careful consideration of any belief or supposed form of knowledge" (p. 9). For Dewey (1933), reflection is a process of systematically resolving a perplexing situation with a "serious and consecutive consideration" (p. 3). While encouraging an overall attitude of open-mindedness, responsibility, and wholeheartedness (see Beauchamp, 2006; Norsworthy, 2008), Dewey believed in a focused and methodological approach to reflection, in which "data (facts) and ideas (suggestions, possible solutions) thus form the two indispensable and correlative factors of all reflective activity" (p. 104). Centred in a positivistic frame, the ultimate goal of reflection, according to Dewey, is a rational and logical explanation of the experienced problem and demand for its resolution. For his strong inclination to rationalism, Dewey has been criticized, and his reflective model is conceived as based on *technical rationality* (Hébert, 2015), which Schön (1987) disparagingly defined as an "epistemology of practice derived from positivist philosophy" (p. 3).

Schön's Reflective Practitioner: An Experiential-Intuitive Reflective Model

To counter the technical-rationality of the dominant positivistic paradigm, which seemed to have "failed to resolve the dilemma of rigour versus relevance confronting professionals" (Usher et al., 1997, p. 140), Schön (1983, 1987) presented his experiential-intuitive model of reflection based on a new epistemology of practice (Hébert, 2015).

Schön's (1983, 1987) works have been widely influential in professional development in the field of education. He argued that professionals develop a "special expertise" or an artistic and intuitive awareness of their practice, which they "sometimes display in unique, uncertain, and conflicted situations of practice" (1983, p. 22). Such a demonstration of a professional's expertise or competence is usually based on their *tacit knowledge*, which in Polanyi's (1966) words means that "*we can know more than we can tell*" (p. 4). Recognizing the key role of tacit knowledge in a professional's life, Schön (1987) called it *knowing-in-action* that "attempts to put into explicit, symbolic form a kind of intelligence that begins by being tacit and spontaneous" (p. 25). Schön (1983) further elaborated:

> In his day-to-day practice, he [a professional] makes innumerable judgements of quality for which he cannot state adequate criteria, and he displays skills for which he cannot state the rules and procedures. Even when he makes conscious use of research-based theories and techniques, he is dependent on tacit recognition, judgements and skillful performances (pp. 49/50).

Schön (1983) described reflection-in-action as an active and productive process of consciously accessing the tacit knowledge within action in the event of a surprise, confusion, or uncertainty, and thereby developing new knowing-in-action based on an experiment with the situation in light of prior experiential understanding. Schön's process of reflection can be summarized in a step-by-step process, which he (1987, p. 28) defined as a series of *moments*:

- A routine action takes place that we respond to on the basis of our knowing-in-action.

- Routine responses produce a surprise—an unexpected outcome, pleasant or unpleasant, that does not fit the categories of our knowing-in-action.

- Surprise leads to reflection within an action-present.

- Reflection-in-action questions the assumptional structure of knowing-in-action. We think critically about the thinking that got us into this fix or this opportunity.

- Reflection gives rise to on-the-spot experiment.

Whenever we engage in the process of reflection-in-action, we usually follow these moments. However, this process may not be as ideal or neat as described above. What is important to consider, according to Schön, is the significant relationship between action and reflection-in-action. When reflection-in-action is unable to resolve an issue, which is mainly due to the inadequacy of tacit or experiential knowledge, it will necessitate reflection-on-action, entailing a thought process mostly aimed at the review or analysis of the past action and further reading and research on the professional issue beyond the ken of a professional.

Schön's (1983, 1987) works mainly rendered two orientations of reflection: reflection-in-action and reflection-on-action, whereas a third orientation, the reflection-for-action was proposed by Killion and Todnem (1991). Reflection-for-action combines the outcome of the first two orientations of the reflection (Norsworthy, 2008). It aims at committed efforts to enrich the

existing repertoire of professional knowledge to effectively handle any professional eventualities in the future. Schön's concept of reflection-on-action has similarities with Kolb's (1984) experiential learning cycle, where professional learning is the outcome of a concrete experience followed by reflection on the experience, resulting in the development of new concepts and generalizations (explicit knowledge) to be utilized in future practices. In essence, it is worth highlighting that Schön's major contribution has been his in-depth exposition of the idea of reflection-in-action for developing professional competence.

Wallace's Reflective Model: An Exposition of Reflection in Light of Schön's Ideas

Wallace (1991) repackaged Schön's ideas on reflection in a more comprehensible form. As he described the three prevalent models of teacher professional development: the Craft Model[1], the Applied Science Model[2], and the Reflective Model, he convincingly repudiated the Craft and Applied Science Models and presented the reflective model as a "compromise solution" that retains elements of both the Craft and Applied Science Models (p. 17).

The ultimate goal of the reflective model of professional learning is the development of professional competence attained through a cyclical process of reflection on the teaching practice that is based upon an amalgam of "received" and "experiential" knowledge (see Figure 1). What Schön (1983) referred to as "research-based theories and techniques" (p. 58), Wallace (1991) defined as the received knowledge that includes key scientific research theories and concepts a teacher learns during their formal education for becoming a teacher. Experiential knowledge can be broadly considered a combination of tacit (cannot be verbalized), implicit (not verbalized, but can be), and explicit (verbalized) forms of knowledge (Fazey et al., 2006), which is enriched through the interaction of knowing-in-action and reflection. As mentioned earlier, by knowing-in-action, Schön (1983) meant the tacit knowledge that a professional utilizes to make their day-to-day decisions in the thick of teaching practice. Once this knowing-in-action is consciously invoked through the process of reflection, it transforms itself into knowledge-in-action, a kind of explicit knowledge that further adds to the repertoire of a professional's experiential knowledge. However, this is not the only way experiential knowledge is developed; it can also be enhanced by observing the teaching practices of competent others. But it may be noted that "'knowledge-by-observation' is clearly of a different order from 'knowledge-in-action'" (Wallace, 1991, p. 15).

Figure 1

Reflective Cycle
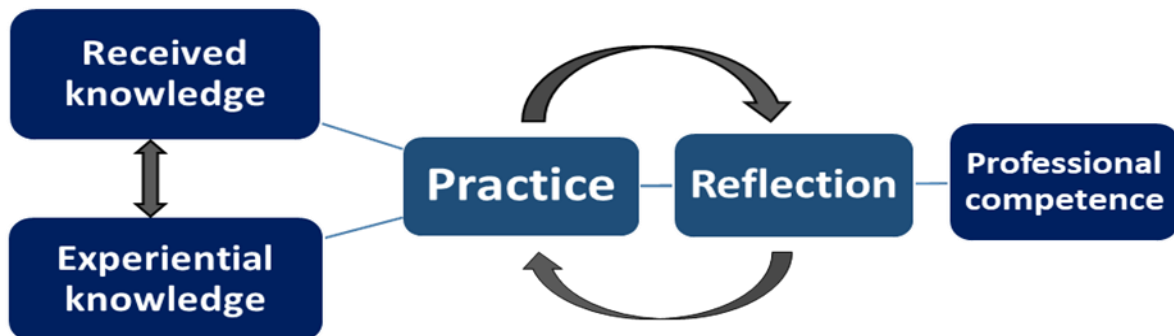
Note. Adapted from Wallace, M. J. (1991). Training foreign language teachers: A reflective approach: Cambridge University Press. Copyright 1991 by Cambridge University Press.

For Wallace (1991), the major aim of the reflective model was not only ensuring that reflection takes place but also finding means to ensure the quality of reflection. He argued that teacher professional learning programmes should aim to explore new ways of supporting a reciprocal relationship between received knowledge and knowledge-in-action being generated through reflection on practice so that they feed and enhance each other symbiotically. Most importantly, unlike Schön, who considered reflection-in-action as superior to other forms of reflection, Wallace (1991) accorded virtually equal importance to reflection-in, on, and for-action while emphasizing that "practice" is the cynosure of the knowledge base (received knowledge + experiential knowledge) and the reflective process. In this way, Wallace's reflective model not only extended the scope of reflection for knowledge creation, but also offered support to Eraut's (1995) contention that knowledge created in "reflection out of the action" (p. 21) is no less than reflection-in-action, which will be discussed further in the next section.

Criticism on the Reflective Model

As Wallace (1991) was largely following the works of Schön (1983, 1987), his reflective model did not face any direct criticism. Most of the kind and harsh critiques of the reflective model were directed at Schön's works. Commenting on Wallace's (1991) reflective model, Ur (1996) raised concern about the likelihood of over-privileging of experiential knowledge at the cost of external (received) knowledge available in books, research papers, and teachers' lectures—a concern equally valid for Schön's work. She believed that "a fully effective reflective model should make room for external as well as personal input" (p. 6).

Eraut (1995) questioned Schön's (1983) claim of proposing a new "epistemology of practice" in the construct of reflection-in-action (p. 49). He argued that "reflection-in-action is a process of knowledge creation, not a new kind of knowledge which is somehow different from knowing-in-action" (p. 12). For developing a new epistemology of practice, Schön should have done in-depth research on his construct of knowing-in-action, because the process of reflection-in-action results in new knowing-in-action (Eraut, 1995). Additionally, Eraut (1995) believed that Schön had failed "to appreciate the importance of the time variable in understanding professional behaviour. When time is extremely short, decisions have to be rapid and the scope for reflection is extremely limited" (p. 14). In case a practitioner fails to promptly resolve the issue at hand due to their incapacity or the element of immediacy in reflection-in-action, they can get upset or frustrated with the situation which might lead to total paralysis in the situation (Bleakley, 1999).

Another major criticism was levelled by Hager and Hodkinson (2011) that highlighted the cognitive and decontextualized nature of Schön's work. Although Schön's reflective practitioner's professional knowledge undergoes a process of construction and reconstruction, and in light of their reflection-in-action they reform their practice, later researchers have viewed Schön's work as more inclined towards the "acquisition" and "transfer" metaphors of learning while paying less attention to socio-cultural factors in learning (see Hager & Hodkinson, 2011, p. 41). This sharp critique of Schön's work in a way questions his professed epistemological stance and finds similar issues in his work for which he himself rejected his predecessors' works, labelling them as centred in technical rationality. Undoubtedly, Schön was more inclined towards individual practitioners but the above accusations are not altogether justified because Schön (1983) also appreciated the vital role of "interpersonal theories of action" and workplace dialogues in reflective practice (p. 210). Nevertheless, he did not succeed in theorizing any scope for reflection as a social practice (Marshall, 2008).

Reflection as a Social Practice

Although Schön and Wallace allow scope for reflection as a social practice, it has been mainly conceived as an individual activity in their theoretical expositions. During the last decade, there have been voices from various quarters arguing for the conceptualization of reflection as a social process. Shulman and Shulman (2004) defined the aim of teacher professional learning as becoming an accomplished teacher who "is a member of a professional community … [and] is ready, willing, and able to teach and to learn from his or her teaching experiences" (p. 259). In other words, they envisaged a professional teacher as a reflective and collaborative practitioner who is armed with a vision, motivation, and professional knowledge and skills. Despite the growing realization in recent years that "reflection is best understood as a socially situated, relational, political and collective process" (Reynolds & Vince, 2004, p. 6), reflection as a social or collaborative process has remained under-conceptualized (Collin & Karsenti, 2011).

A Vygotskian Social Constructivist Perspective on Reflection

Since the social turn in learning theory, there has been widespread interest in Vygotsky's Sociocultural Theory—a magisterial contribution to the domain of Social Constructivism (Johnson & Golombek, 2016; Swain et al., 2015). In Social Constructivism, a (teacher) learner "influenced by past experience and present interactions with the social learning context," actively constructs knowledge that is mediated by certain tools or means (Webster-Wright, 2010, p. 20). Vygotsky (1982) made a unique contribution with his exposition of the concept of mediation and declared that "the central fact about our psychology is the fact of mediation" (p. 166). All the higher human mental functions or activities, which also include teachers' professional learning, are mediated by various *tools*. Although in Vygotsky's earlier work (1978), a distinction was made between tools (externally oriented) and signs (internally oriented), some prominent Vygotskian researchers chose to use the generic term tools for all mediational means (Johnson & Golombek, 2011; Swain et al., 2015).

Vygotsky (1978, 1982) mentioned various forms of mediational tools. Moll (2014) has extracted five classes of these mediational tools from Vygotsky's works: Social mediation, Semiotic mediation, Instrumental or tool mediation, Anatomical mediation, and Individual mediation (p. 31). However, Vygotsky emphasized the significance of semiotic mediation (verbal interaction) and social or human mediation in learning, which Johnson and Golombek (2011, 2016) further elaborated with reference to teacher professional learning and development.

Semiotic Mediation (Verbal Interaction) as a Means of Reflection

Of all the tools in Vygotsky's sociocultural theory, language is the most privileged cultural artifact—a semiotic tool that mediates the higher mental functions of reflection and learning (Swain et al., 2015). There are two ways we engage in dialogue: collaborative dialogue (inter-personal) and private speech (intra-personal), and language mediates between these inter-personal and intra-personal domains of humans.

Private speech is probably the most complex concept in Vygotsky's sociocultural theory. Private speech, "speech for oneself" (Vygotsky 1962, p. 135) or self-talk (Vocate, 1994), is a cognitive tool that mediates our thinking process through intra-personal communication (Swain et al., 2015). Vygotsky (1934/1987) maintained that private speech "facilitates intellectual

orientation, conscious awareness, the overcoming of difficulties and impediments, and imagination and thinking" (p. 259). Further, private speech helps us "to make sense of the situation in words, to find a solution to a problem or plan the next action" (p. 70). There is empirical evidence that adults use private speech for intra-psychological purposes, particularly when faced with a difficult task, and it serves "a mediational role in problem-solving and self-regulatory processes" not only "during early adulthood" but also "throughout the life span" (Duncan, 1999, p. 160). Vygotsky (1960) argued:

> All higher psychological functions are internalized relationships of the social kind, and constitute the social structure of personality. Their composition, genetic structure, ways of functioning, in one word, all their nature—is social. Even when they have become psychological processes, their nature remains quasi-social. The human being who is alone retains the function of interaction. (p. 198).

Interestingly, the private speech—an intra-psychological dialogue—is a form of externalization of higher mental functions, which also provided partial evidence to Vygotsky for his argument that higher mental functions are externalized in the form of social interaction between people (Swain et al., 2015). Whenever humans are up against any complex cognitive issue, they experience the emergence of private speech that takes the form of an internalized I-Me dialogue, which is an internalized replication of the patterns of participation in social interactions that occur in I-You dialogue (Swain et al., 2015; Vocate, 1994).

Social (Human) Mediation as a Means of Reflection

Vygotsky's central concept of semiotic mediation offers substantial scope for the conceptualization of reflection through inter-personal verbal interaction. As a mediational tool, social relations in the form of human mediation are key to our understanding of how human engagement in social interactions mediates the process of learning and development. For teacher professional learning, human mediation can play a crucial role in teachers' movement between scientific and everyday concepts—between received (theoretical & pedagogical) knowledge and experiential knowledge—which gradually leads to the development of sound teaching practices that are simultaneously more localized and context-specific, and grounded in theoretical, pedagogical, and experiential knowledge (Johnson & Golombek, 2011).

Corroborating the findings of an exploratory study by Collin (2010), Collin and Karsenti (2011) proposed that teachers, besides their individual cognitive capacity for reflection, can greatly benefit from verbal interactions with their colleagues and peers. Vygotsky (1979) also emphasized the point that "the social dimension of consciousness is primary in time and fact. The individual dimension of consciousness is derivative and secondary" (p. 30). More importantly, the reflection taking place in the inter-personal interactions can also be progressively internalized, contributing to a process of intra-personal interactions, and thereby enhancing professional competence. It is worth noting that internalization of learning takes place when learning progresses from a socially mediated inter-personal activity to an internally mediated intra-personal activity. It is not a simple transferal of an extraneous activity into an internal, pre-existent "plane of consciousness" in the form of an addition or replacement in the existing repertoire of a teacher; rather, the internalization of learning creates a new plane in the consciousness, leading to transformation in a teacher's professional self/identity and knowledge (Leont'ev, 1981, p. 57).

Conclusion

Vygotsky's sociocultural theory of learning and development offers significant scope for conceptualizing reflection as a social practice (Collin & Karsenti, 2011), allowing teachers to move between the reflection paradigms of individualism and social constructivism. Supporting this conceptualization, Vygotsky (1962) underscored that "there remains a constant interaction between outer and inner operations, one form effortlessly and frequently changing into the other and back again" (p. 47). Vygotsky's theory highlights the interlinked nature of human cognitive and social dimensions and offers a theoretical foundation to support the process of "how teachers come to know what they know, how different concepts in teachers' thinking develop and how this internal activity transforms teachers' understandings of themselves as teachers, their teaching practices and the nature of their students' learning" (Johnson, 2007, p. 178). The way educational institutions provide opportunities to their teachers to mediate meaningful social interactions among themselves can determine the scope and strength of the teachers' continued professional learning and development.

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Notes

1 The Craft Model encompasses probably the most traditional form of professional education and learning where professional knowledge and wisdom reside in an experienced professional, and the only way to learn the tools of any trade for a novice is to listen to, observe, and imitate a master-teacher. Although the craft model allows for experiential learning through observation, advice, and instruction of the expert teacher, the nature of learning in this model is essentially static and imitative with little accommodation for a rapidly growing body of research-based knowledge (Wallace, 1991).

2 The Applied Science Model is another more convenient term coined by Wallace (1991) to capture Schön's technical rationality. Aligned with learning as transmission approach, the applied science model has been the most dominant model of teacher professional education until recent times. With little scope for a professional's expertise resulting from experiential learning, the applied science model acknowledges only the experimental knowledge base which has failed to resolve the complex day-to-day professional issues and dilemmas faced by a professional in the classroom. This model also perpetuates a "clear divide between the 'thinkers' and the 'doers'," the researchers and the practitioners, when it comes to the development of professional knowledge (Wallace, 1991, p. 10).

Muhammad A. Shah is an Assistant Professor at the College of Education and Arts, Lusail University Qatar. He holds an MA in ELT & Linguistics from UoL, Pakistan, an MEd in Educational Leadership & Policy from OISE, University of Toronto, Canada, and a Doctorate (EdD) in TESOL from the University of Exeter, UK. Before joining Lusail University, he taught at the Engineering Communication Program, University of Toronto, where he still holds an adjunct faculty position. Prior to his current teaching roles, he taught academic English to undergrads at renowned universities in the Gulf for 10 years, including four years at Qatar University. He is also a certified IELTS Examiner and TESL Ontario certified teacher &

teacher trainer. Considering his research potential, OISE, University of Toronto, nominated him for the prestigious Banting Postdoc Fellowship 2019-20. His research focuses on professional learning and excellence, learning motivation, language pedagogy, and writing and communication skills.