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Thomas G. Ryan

NIPISSING UNIVERSITY, thomasr@nipissingu.ca

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The Scholarship of Teaching and Learning Within Action Research

Promise and Possibilities

Thomas G. Ryan

Nipissing University, North Bay, Ontario, Canada

The following is an effort to support Action Research (AR) and the Scholarship of Teaching and Learning (SOTL). They are professional development approaches that require participants to closely examine the data within themselves (self-study) and their immediate environment (Albers, 2008; Mertler, 2012), in order to grow, change, and improve (Walser, 2009). We must also embrace the notion that the current prominence of data-driven decision making makes action research a critical mode that can assist all educators as they move forward building and planning, via informed and vital educational decisions at all levels (Friedman, 2008). In doing so, participants develop a worldview and understanding of *praxis* (Kemmis, 2011), which is shared through reflective exercises that are made public (Ryan, 2001). Many questions surface due to reflective activities and one of the most frequent questions posed asks: How do I improve my teaching? What results is described as an action research effort that permits a teacher candidate or faculty member to articulate personal teaching experiences in a manner that provides evidence which can alter the view of themselves as researchers, active professionals, and school leaders in the educational community and beyond (Ryan, 2009).

Within this article I claim that AR and the SOTL are very much related. However, this relatedness is not straightforward. It is important that the two concepts, however similar they may prove to be, remain distinct, yet understood to create clarity and precision within any discussion that may unfold concerning these concepts in teacher education, professional development, and teaching practice (Chalmers, 2011; Clarke & Hollingsworth, 2002; Connolly, Bouwma-Gearhart, & Clifford, 2007; Trigwell & Shale, 2004). Conceptually, the need to uncover commonplaces and differences can be linked to a requirement to infuse clarity within any discussion which addresses how teachers function and facilitate learning and teaching in their classrooms—a practice that arguably motivates educators to research, write, and share findings (McKinney, 2007). These acts (AR/SOTL) within educational research involve reflective modes and most likely would be perceived as scholarly (Dewar, 2008). Any effort to investigate practice and/or related theory is often shared by educators and researchers who actively pursue meaningful personal communication that can eventually be made public within professional literature (Gray, Chang, & Radloff, 2007; Walser, 2009). This scholarly exchange is one that needs defined terms, strategic words, and specific phrases to enhance understanding, processing, and general communications within scholarly groups (Ryan, in press). Both action research (inquiry site) and

the SOTL efforts (Huber & Hutchings, 2005) need to be understood, labeled, and reflected upon as educators make public their research and scholarship, and even air raw data in an effort to improve, grow, and enhance educational outcomes (McKinney & Cross, 2007). The researcher makes research public and shares findings in order to reflect upon new theory and emerging practice, process activities, and communicate development both on paper and via conversations, presentations, and reports completed as part of the professional role.

The action of teaching and researching can be described and illustrated on paper, however it is often proprietary, eclectic, and linked to a particular theorist (Gray, Chang, & Radloff, 2007; Esposito & Evans-Winters, 2007). Action research and the SOTL can be understood via common terms, words, and phrases, and each requires recursive bouts of reflection upon the action of teaching and learning (Waterman et al., 2010). We need to accept that the *act, reflect, and revise* model, frequently utilized in action research (Figure 1), while being recursive, is a required centerpiece for many action researchers (Herington & Weaven, 2008; Walser, 2009). If we adjust the action research model in Figure 1 to more easily compare with the SOTL first proposed by Boyer in 1990, we arrive at Figure 2. Third, the evidence hopefully suggests how this association can be identified in the action of inquiry and within the action of practice (Friedman, 2008; Ryan, in press). For instance, the actions of inquiry can often be directed towards the study of self as a practicing professional in both the SOTL and AR. The inquiry mode can cause a person to address a practical problem via pragmatic questions in both the SOTL and action research. Fourth, the intent within these investigative actions is to add buoyancy to the problem and/or question it, causing it to surface within the public domain. Once in public view, society can critique and respond to the action of research (SOTL) causing it to evolve and grow. AR is but one mode infusing the current incarnations of the SOTL model. AR is similarly utilized in all areas of education and it is through systematic inquiry that practical problems and questions are addressed and frequently solved via evidence-based investigative actions (McKinney & Cross, 2007). We can, for example, improve our administrative practices (Cox, 2004) via purposeful dialogue. We can enhance our teaching (Albers, 2008) and our faculty policy using systematic action that may enhance, improve, and deepen our understanding of issues and problems. Take for example the use of action research within teacher education as a means to professionally develop via recursive reflective efforts.

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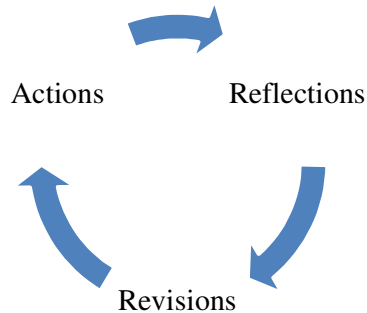


Figure 1. The Action Research Cycle

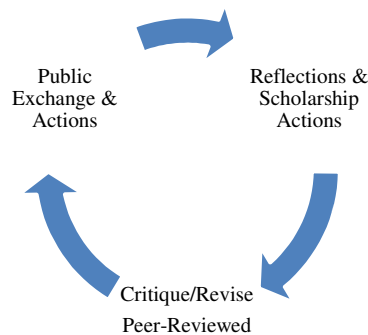


Figure 2. The SOTL Cycle

Problem

Most educator development can be described as a quest to improve just as the SOTL can be viewed as asystematic, even recursive effort to illuminate, improve, and grow through dialogue, reflection, and often strategic self-study (self-reflection) which eventually is made public (McKinney & Cross, 2007; McKinney, 2007, p. 8). This recent definition of the SOTL has benefited from its genesis launched by Boyer (1990) who moved many universities to expand their definitions of faculty scholarship to encompass not only the scholarship of discovery, integration, and application but also embrace the scholarship of teaching. The overlaps in the SOTL and AR are undeniable as each mode involves the other to some extent. What remains problematic is the application of these modes in all disciplines, programs, and classrooms in a manner that is similar which could result in heightened sharing and universally understood outcomes (Hutchings, Huber, & Ciccone, 2011). Huber (2006) concluded:

The scholarship of teaching and learning is typically pursued as a kind of practitioner or action research by teachers in their own classrooms, not the circumstances or settings for which the investigative methods used in most disciplines—including education and the

learning sciences—are well designed. Doing the scholarship of teaching and learning sits, therefore, at the edge of most disciplines, calling on but also going beyond the normal knowledge practices of most fields. (p.72)

Within most disciplines we can locate this periphery of knowledge. For instance, Megowan-Romanowicz (2010) completed a one year action research study in a master of natural science program to improve teaching and learning. Wright, Finelli, Meizlish, and Bergom (2011) at the University of Michigan, situated themselves within the *Investigating Student Learning (ISL) program* which financially supported faculty and graduate student teams to pursue SOTL research on courses and curricula. Herein we realized our position in this periphery of knowledge and identified a problem that led us to a multi-layered question which asked: Can we demonstrate the relatedness of two distinct modes (SOTL and AR) in order to advance the discussion of site-based research focused on teacher education, professional development, and teaching practice, in a manner that it is somewhat universal and/or shared (understood/accepted) by stakeholders?

To begin, we claim that within teaching and teacher education “in general is a process of observation, reflection, and action since teacher education is not the equivalent of switching on the ability to think like a teacher” (Russell & MacPherson, 2001, p. 8). Self-development is critical in action research (Kemmis, 2010) and the SOTL, as more than one participant can share his/her experiences. Within a Faculty of Education for instance, it is very much part of the training process and this requirement facilitates the development of theory and practice, and infuses professional learning. In Faculty of Education classrooms, statements emerge via written tasks and teacher qualities are subsequently identified, labeled, and examined in pre-service classes, and imbued with professor feedback on written tasks. This exercise is an obvious necessary task. However, teacher training is not always overt or instantaneous. Rather, teachers develop gradually via experience and inner growth (self-development).

Most often, pre-service teachers struggle to complete mandatory reflective tasks that result in professional improvement just as faculty struggle to overcome the recursive vexing problems of teaching and learning using the SOTL model. This may be due to the changes in perception and the fact that “reflection is a state of mind, an ongoing constituent of practice, not a technique, or curriculum element” that is easily grasped and used (Bolton, 2010, p. 3). While there are many types of reflection (before, during and after) and many more ways to define the act of reflection (critical thinking), it was John Dewey (1910) who suggested that reflection was the “active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends” (p. 9). Reflection herein and the reflective tasks are conduits as “professional learning is not just an intellectual process (a process of acquisition and application of knowledge), but also a process of practical action in which knowledge is enacted in reflecting and developing a specific action” (Altrichter, 2005, p. 11). Professors may point out that reflection is a process of recalling actions, thoughts, and feelings during an experience in order to generate new understandings of teaching and self (Ryan, 2007), yet the demand for written reflections using this mode cannot be forced. If you do, you may get a premature mess. It is therefore understood by most students and professors alike that “reflection has the potential to lead to significant growth as these thoughtful considerations of...teaching and student learning will lay the groundwork for a successful career in education”

(Henniger, 2004, p. 369). It is critical “that we invest in our teaching the intellectual powers we practice in our research” (Bender & Grey, 1999, p. 3). To some reflection is “a form of mental processing with a purpose and/or anticipated outcome that is applied to relatively complex or unstructured ideas for which there is not an obvious solution” (Moon, 1999, p. 23). This outcome is but one of our many goals within numerous, if not all Faculty of Education institutions that hope to help new educators put in place a habitual mode of thought, practice and refinement (action research/reflection/SOTL). Ultimately it may be solely a mission to equip educators with a tool, namely *action research*, to facilitate growth, change, and praxis inquiry (Kemmis, 2011).

Praxis and Research

The term praxis, used as a noun, has dual meanings. Praxis in the first sense can be the practical application or exercise of a branch of learning (Kemmis, 2011). Praxis in the second sense could indicate habitual or established practice, as in a custom or classroom. The plural form of praxis is praxes, and this could be used to indicate several branches of learning or established practices and customs. The practices of teaching or praxes of teaching are elements that can be examined, changed, and effectively transformed within action research efforts and the SOTL at all levels. The intertwining of action research and praxis (praxes) can best be demonstrated by considering that “praxis is informed, committed action that gives rise to knowledge rather than just successful action. It is informed because other people’s views are taken into account. . .It leads to

The practices of teaching or praxes of teaching are elements that can be examined, changed and effectively transformed within action research efforts and the SOTL at all levels.

knowledge from and about educational practice” (McNiff, Lomax, & Whitehead, 1996, p. 8). It has been said that the best teacher is experience, and we begin to understand when we participate (Gilpin, 2007). There are calls to make students partners in educational research due to this understanding (Hargreaves & Fullan, 1998; Mertler, 2012; Ryan, 2005). The process or mode of action research can be understood as a “disciplined process of inquiry conducted by and for those taking the action. The primary reason for engaging in action research is to assist the actor in improving or refining his or her actions” (Sagor, 2005, p. 1).

One could argue that the SOTL has a relatedness that is undeniable, especially when we consider the work of Albers, 2008; McGovern and Miller, 2008 who tackled post-secondary educational issues and used faculty communities to initiate actions that may have not occurred otherwise. Teaching can always be improved at any level, hence the need to reflect upon teaching. However, failing this, teaching may stagnate, remaining ill-conceived and narrow. It is a cycle of looking, thinking, and acting which is equally central to teaching and research inquiry. Within action research there is a “language of images, personal philosophy, rules, practical principles, rhythms, metaphors and narrative unity” (Connelly & Clandinin, 1988, p. 60), which informs praxis. These elements are culturally bound and can be further grouped into the verbal and nonverbal capacities of communication. The communicative action concerning teaching praxis is reflexive and builds into a fluid process of transformation usually over time if the reflection is of a critical nature (Kemmis, 2011). Ultimately, there can be no transformation without critical reflection as it relieves pressure and facilitates awareness and growth (Fullan & Hargreaves, 1991). This

whole process of self-examination has become known as *reflexivity* (May, 1998, p. 22). The action researcher is therefore informed by this reflexive experience. Reflexivity is defined herein as the condition of taking account of the personality and presence of the researcher/teacher within the context (Ryan, 2007). May (1998) suggested that the “concepts of reflexivity may be a way of bringing qualitative methods to account for themselves in a way that goes some way to satisfy the demands of scientific method” (p. 22).

It is the reflexivity that leads to further teaching praxis reflection which is “continuously transformed into practice, and practice continuously throws up reasons for reflection and development of these practical theories” (Altrichter, 1993, p. 38). At the outset, the act of reflection on teaching praxes is uncomfortable as reflexivity begins inefficiently (Kemmis, 2011). Nonetheless, “praxis involves critical reflection and contemplation on one’s actions and using the reflections to inform practice” (Gilpin, 2007, p. 2). However, educational language can cause misunderstanding and require a great deal of probing via clarifying questions of self and others to realize meanings. Eventually, meanings become clearer, shared, and understood, and lead to critical reflection and communal praxis. Indeed, by developing self-critical groups of teachers, we can examine the policies, practices, and schools as problematic elements within the community (Carr, 1986). This is important to teachers at all stages of their career and any “approach to teacher education which does not encourage teachers to critically reflect... will be either inherently conservative or dangerously doctrinaire” (Carr, 1986, p. 6). The community participant action researcher (teacher) experiences, as does each participant, the whole rather than just a part or pieces. The classroom-focused research is a way “to build excitement, confidence and insight—and these are important foundations—personal and professional development” (Adelman & Carr, 1988, p. 6). Again, the terms *praxis* and *action research* are used to tell us that action research by its very nature must have praxis which is informed, committed action that gives rise to knowledge (McNiff, et al.1996; Mertler, 2012).

As in most discussions, there are positions which can be labeled and described, and after much detailed argument, teachers can either accept the notion or not. Such is the case with the action research paradigm (Mills, 2010). Melrose (1996) concluded that “a critical practitioner is in effect a researcher into his or her own practice who develops and redevelops personal theories cyclically, as a consequence of putting these theories, as they arise, into active practice” (p. 52). Within the SOTL, we witness a similar emphasis where participants deliberate, peer review, and investigate to improve. Praxis can be used to discuss teaching as a branch of learning which in this case is informed by the participants doing the action research and the experience of doing the action research (Gilpin, 2007; Kemmis, 2011). Stringer (1996) explained how “community-based action research therefore is ultimately a search for meaning” (p. 158). The community resides within the faculty grouping, department, or arranged learning community (Stringer, 2013). This community has routines, rules, practices, procedures, and policies, and to some extent a language that identifies it as a culture unto itself.

The praxis of action research and the SOTL is now a means and a tool to look at a social culture that has, for the most part, been studied largely using quantitative non-contextual research methods to arrive at scientific knowledge of our schools, systems, and education in general. This means of inquiry has left many questions, and to some extent has created problems. Generally, “investigation of the social and behavioral worlds cannot be operationalized in scientific terms,

because the phenomena to be tested lack the stability required by traditional scientific method” (Stringer, 1996, p. 146). This is why action research, the SOTL, and the use of praxis is the core of many recent education inquiries.

Action Research: Conceptualizations and Role

Action research is “...best thought of as a large family, one which beliefs and relationships vary greatly...it is a group of ideas emergent in various contexts” (Noffke 1997, p. 306). Furthermore, it can be argued that different concepts of action research embody significantly different roles for research participants (Kemmis, 2010). Yet clear differentiations may exist only on paper as theory and practice can be quite disparate (Elliott, 2007; Mertler, 2012; Ryan, 2007).

The story of action research is traced out almost as a family tree with clearly identifiable descendants and some debate over who is the patriarch (Noffke, 1997, p. 311). As a result of this growing family tree it has widespread popularity crossing cultural boundaries and knowing no geographic bounds. AR has benefited and become enhanced, truly metamorphosing and undergoing a substantial genesis (Kemmis, 2010; Stringer, 1996, p. xvi). Many contemporary educational researchers (Elliott, 2007; Mertler, 2012; Mills, 2010; Smeets & Ponte, 2009) have attempted to conceptualize and define action research. However, McTaggart (1996) pointed out long ago that, “action research is not a method or a procedure for research but a series of commitments to observe and problematize through practice a series of principles for conducting social enquiry (the praxis of a social science?)” (p. 248). The following table provides some insight into different approaches to action research used in various levels of education.

Table 1

Approaches to Action Research

Approaches	Level of focus	Level of participation	Example of research question
Individual	Single classroom	Individual teacher	1. What impact can daily phonemic awareness activities have on my kindergarten students’ oral language development? (<i>kindergarten teacher</i>) 2. How can using concrete objects (manipulatives) improve my students’ ability to identify and extend patterns in mathematics? (<i>third grade teacher</i>)
Collaborative	One or more classrooms	Co-teachers, teams, departments, educational agencies & teachers, university	1. How can students with disabilities experiencing deficits in phonemic awareness show improvement in those skills by participating in additional and intensive instruction in phonemic awareness activities at least four times per week? How will it affect their overall reading ability?

		faculty & teachers, teachers within a district, etc.	(<i>exceptional student education [ESE] teacher & literacy coach</i>) 2. How can implementing “Organizing Together,” a Strategic Instruction Model curriculum, improve students’ abilities to come to class organized and prepared? (<i>grade 6 teachers in a middle school team</i>)
School-wide	School-improvement	Whole faculty	1. How can we teach our students to organize, analyze, synthesize, and interpret what they read? (<i>school-wide question</i>) <ul style="list-style-type: none"> • How can modeling through read-alouds improve students’ abilities to organize, analyze, synthesize, and interpret what they read? • There are several action research teams within the school. The above example is one question being studied by one action research team. 2. How can implementing a school-wide positive behavior support program improve students’ safety and increase appropriate student behaviors within the school? (<i>all faculty</i>)

(Hewitt & Little, 2005, p. 5)

Taking Action: Group Work and Facilitation

To ease a newly formed group of people into any process, an icebreaker is important in new action research groups at any level as Bolton (2010) suggested how “participants need to know each other’s names [and that a] warm-up exercise helps people feel integrated and involved” (p. 171). Being aware of non-verbal communication and recognizing the informative nature of “facial expression, posture, gesture, blushing, sweating, laughter, crying, and so on” (Bolton, 2010, p. 172), is important to respond to individual needs. As for strategy development, the process of *think aloud*

Overall, attending to verbal, non-verbal and visual learning opportunities can only assist and support the growth from within the action research mode.

which is fairly open, permits unstructured reflection upon what has been tried in the area, why it did not work and a look at some things others have tried in their problem area, and through discussion with others progress is noted (Ryan, 2012). A third strategy outlined by Renner (2005) is writing in circles that bring forward more controlled reflection which in turn helps the facilitation process without limiting ideas. The writing in circles begins:

By stating the problem clearly and posting it for all to see. Break the class into small groups and ask them to sit in circles. Ask one person to write two ideas on a blank sheet and pass the sheet to the next person who will add another idea or a variation of what is already there. That person passes the sheet on and so on. (Renner, 2005, p. 71)

To broaden facilitation, you can use visual techniques such as “concept mapping [which] involves requesting individuals to visually represent all the goals, purposes, issues, considerations, decision, and knowledge involved in solving or understanding a particular problem” (Osmond & Darlington, 2005, p. 11). Overall, attending to verbal, non-verbal and visual learning opportunities can only assist and support the growth from within the action research mode (Ryan, 2012). This is necessary because we seldom approach a problem from a “neutral position, as...past experience is weighted with preconceptions, judgments, and emotions. The purpose of an idea dump is to ‘unload’ or, at least, ‘park’ the most obvious blocks regarding the problem” (Renner, 2005, p. 70). New or even seasoned educators carry preconceived notions (pre-understanding) into action research and/or the SOTL. Admittedly, some come slightly world-weary with the notion that action research will not be any different than past exercises in professional development. The hopelessness can be sensed in some working groups (Ryan, 2012). What is required is an immediate purging of the negative thoughts by planning a 10-minute *dump discussion* in which participants discuss problem areas and vent to identify and/or erase current roadblocks (policy, funding, resources, workload, people) that may well be out their control (Ryan, 2012).

Perhaps in one session, the *talking stick* strategy may be useful: a symbolic stick is passed around “as an invitation to speak” at the right moment when “calm reflection and careful listening is needed” (Renner, 2005, p. 67). Osmond and Darlington (2005) also have participants ask themselves: “How does what happened compare with what I intended to do?” (p. 5). This question gets to the root of planning and teaching as they often do not unfold in the same manner. Hence, there is tension when we ask teachers to talk about their own teaching and improvement (Ryan, 2012). Following this session, participants move into visualization tasks. Renner (2005) suggested this strategy as a means of using “mental images to bring about changes in attitudes and behavior...[that] can transform unconscious thoughts, bringing them to the surface and promoting action” (p. 70).

Following this visualization, participants begin individual reflection about their classroom experiences, and identify a problem to spotlight (Ryan, 2012). They begin to focus and document the discouraging and/or disappointing times and the people who were involved. We share, yet this can be an emotionally charged time. Some may have never disclosed or allowed these words and feelings to surface. The guards come down. Their inner voice is made *public* (a key element in the SOTL and AR), and because it is new, emotions surface. The process requires participants to admit that there may be something incorrect. Connelly and Clandinin (1988) suggested action research is, “a deliberate way of creating new situations and of telling the story of who we are. Action research consists of deliberate experimental moves into the future, which change us because of what we learn in the process” (p. 153). Most of us can do this well, however, this type of critical reflection within a public forum can be difficult to facilitate and once the shell is laid aside, very cathartic (Ryan, 2012).

Action Research: Self Development

The suggestion that you have complete autonomy confirms the role of self in this action research image (Kemmis, 2010). Learning must occur, and this learning comes from the story one

develops within the process as if telling of an experience or summer vacation. You control what you do, how you do it, and when. The notion of facilitator seems offensive in this rendition if the person suggests anything that may infringe on the teacher-researcher role. Change due to planned action by the participant (self-researcher) is accepted unconditionally. The image of the puppet teacher being articulated by a master action researcher as in technical action research is shunned. McNiff et al. (1996) characterized action research participant roles as something involving:

The 'I', the self studying the self, but it is done with and for other people. The aim of action research is personal improvement for social transformation, so it is essentially collaborative...You will be depending upon them for your data and evidence, to check how your changed practice might be influencing them and the situation you are a part of...Keep them informed...Invite their feedback, and let them know it is valued. (p. 30)

The emphasis in this conceptualization of action research is one of equity which is important in all action research (Kemmis, 2011). Furthermore, the very role of participants appears to be one of nurtured mutual respect and ethical care. In their text, *You and Your Action Research Project*, McNiff et al. (1996) acknowledged that "...they are participants and co-researchers; they are not 'subjects' that you are studying. You are studying yourself in relation to them. They are central to your action research..." (p.34).

Improving via Action Research and the SOTL Modes

Another researcher active in the support and development of action research in the field of education noted that participants engaged in AR would be "gaining insight, developing reflective practice, effecting positive changes in the school environment...and improving student outcomes" (Mills, 2003, p. 5). These similar outcomes have spurred on the SOTL movement since the 1990s (Gilpin, 2007). Akin to the SOTL outcomes, the action research term has been used to describe professionals studying their own practice in order to improve it (Kemmis, 2011). Applied to teaching, it involves "gathering and interpreting 'data' to better understand an aspect of your teaching that interests or concerns you" (Russell, 1997, p. 1). Whether in education or elsewhere, the SOTL can be viewed as a methodical effort to illuminate, advance, and cultivate via dialogue and reflection, the very praxis of teaching and learning which eventually is made public textually (Gilpin, 2007; McKinney, 2007). This relatedness can be found within site-based research focused on professional development and teaching practice.

Conclusion

In conclusion, we now know that educational action research demands a series of commitments. It is a journey of self through reflective inquiry that is social (Kemmis, 2010). We do it to improve our teaching and self. We desire to improve praxes (practices) and understanding within the contexts in which these understandings are implemented (Kemmis, 2011; Kemmis & McTaggart, 1988a). Indeed, these descriptions and conceptualizations of action research have led to a multitude of models in which different concepts of action research embody significantly different roles for research participants (Mills, 2010). Conception of the role is something formed in the mind as a thought or notion is, in response to a need. Yet this need may, in order to

conduct a scheme or research plan in a certain manner, preclude a participant's departure from these commitments. The commitments may only exist on paper as theory. However, in practice, these can be restrictive. Hence, the ethical boundaries are cast by most teacher-researchers. The very conceptualization of the role of participant changes due to our need to use action research to improve circumstances and understandings of personal, professional, and political dimensions (Kemmis, 2010; Ryan, 2001; Noffke, 1997).

Currently, educators globally can only benefit from action research as a mode that can support and nurture teachers and teaching just as the SOTL does. However, we must be mindful in all research efforts that reducing and decontextualizing the social world can misrepresent the situation (King, 1988) that is the focus of the study, argument, or question. Recent global concerns with accountability in education have resulted in attempts to break down the art of teaching into steps that can be measured, assessed, and ultimately made teacher-proof. Consider the pre-service and in-service teacher checklists which attempt such a feat, yet are at best laughable in contrast to the 'real' performance required each day in our classrooms and institutions. The practice of assessing teacher performance via checklists is less obvious: Hodson (1993) reminds us how "...we need to guard against undervaluing that which we cannot measure...We can still make judgements, provide criticism and proffer advice" (p.143).

AR and the SOTL, while embracing praxis, will allow most studies to clasp the 'whole' culture in a manner that will produce useful professional development outcomes. Moreover, because professionals are "engaged in work which influences the lives of others in significant ways, their professional development ought to be an essential component of their work lives" (Yonemura, 1982, p. 234). Indeed, the task of remaining focused and cognizant of professional development is one of the aims of most educational research efforts. Yet it is a problematic task as there is a "continuous interplay between doing something and revising our thought about what ought to be done, which is often called praxis" (Noffke, 1995, p. 1). Ultimately, any transformation via educational action research and/or the SOTL can be eventually linked to each participant's ability to become critically reflective (Kemmis, 2011; Rudduck, 1991). Hence, participants involved will in due course accept the notion of "action research [as] the most valid process for determining what works best in a particular situation" (McLean, 1995, p. 65), and that it is allied with the SOTL to boost professional growth and self-development.

Thomas G. Ryan is a professor of education at Nipissing University in North Bay, Ontario. He is currently teaching Graduate Studies and is the recent author of a new book published by Common Ground Publishing LLC., The Doctoral Journey: Perseverance.

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