**Educational Action Research as a Global Competence in a Digital World**

Ryan, T. G. (2018, April). Educational action research as a global competence in a digital world. *Canadian Journal for Teacher Research*, 1-8.

**Abstract**

This article argues for the inclusion of action research in a global competency model and recognizes action research as a tool that can help people achieve a level of global competence within our digital society. Action research can improve teacher self-awareness within a culture, improve interpersonal relationships, and advance formal education while enriching practical experiences. Change via action research today occurs within a digital landscape and yet the human side within the global competence model remains an important core constituent.

 Each of us undertakes digital actions every day and in doing so we may read about global competency online or in non-digital communications. For some the understanding of global competence is familiar yet for others the definition is unfamiliar. Hence the need to emphasize that herein, global competency is understood as the “capacity and disposition to understand and act on issues of global significance” (Boix Mansilla & Jackson, 2011, p. 4). Global competence concerns a larger scale that is inclusive and not limited to any specific age, for instance consider the globally competent students who “are curious about and engaged in the world. They are increasingly able to investigate the world beyond their immediate surroundings, understand their own and others’ cultural perspectives, communicate across differences, and take action to improve conditions” (Boix Mansilla, 2016, p.12). Global competence is of greater breadth and depth as its “comprehensiveness is clear when compared to related terms such as digital competence, which includes being able to integrate and use technology via generic skills suitable for all situations” (Instefjord & Munthe, 2017, p. 37).

 Each of us experience a digital reality in our own local community just by walking down the street observing people using mobile screens that are hand-held, built into automobiles, and placed strategically in or near places of business. This digital activity for many is transformative, emancipatory, and yet elusive for some because the rapid change caused by technologic innovation creates new unique issues in our communities. Tapping credit cards, speaking to a cell phone to get an answer from Siri, or looking to our watch for updates on how far we walked is quite common. Yet, some of us are well behind the latest technologic innovation; and, some of us wait for the next model or software version to help us solve a problem or meet a challenge.

 In education the pace is slowed as advancements or steps require planned support, thorough review, careful monitoring and exhaustive observation to guide and inform changes in both policy and personnel (Ryan & Bagley, 2016). This traditional process within education may be holding us back: “How we can expect students to grow when we have not grown ourselves as instructors? We cannot teach with 19th century skills and expect our students to be prepared in the 21st century” (Martin, 2015, p. 24). Cost, time, hardware issues, and the professional development of stakeholders continue to slow the pace of innovation in education(Parr & Ward, 2011). Perhaps, we need not lead, and instead only participate in this digital landscape, to enable all to move forward in a manner that instigates change, improvement and professional development because the centre of pedagogical emphasis swings over time from teacher to student and back, which can erode certainty in the minds of educators.

 Educators recognizing the need for a shift in classroom practices may opt for flipped classrooms which place students at the centre who devote more time for authentic (progressivism) in-class activities (Goodwin & Miller, 2013; Wen-Ling & Chun-Yen, 2017). This teaching mode welcomes increased communications and embraces Higher Order Thinking Skills (HOTS) via digital technology usage among other platforms for increased dialogue and learning (Baepler, Walker, & Driessen, 2014). Another student-centred instructional mode is commonly referred to as Project-Based Learning (PBL) which supports group work (teams), skill development, HOTS, interpersonal communications, and leadership opportunities (Fernandes, 2014). Students can tackle global issues such as global warming, provision of drinking water, food sustenance and global peace using digital tools and a team approach (Fernandes, 2014).

 For some, leading, teaching, and taking action is a Global Competence (GC), which is often referred to as an “ability to understand and take action on issues that matter in the world, it is an educational equalizer and is imperative in the culturally, linguistically, economically, and politically interconnected twenty-first century” (Ong, Kraus, & Allison-Zarea, 2016, p. 1). Logically, educators mindful of GC will act to achieve goals related to GC by developing and implementing global education “courses, programs, approaches, partnerships, and other supports designed to build "global competence" in students” (Ong et al., 2016, p. 1). Consider one model of global competence (Figure one) which has four distinct colored layers. Light green is self-awareness (knowing oneself within your culture), and dark green indicates dealing with others (interpersonal). Light blue is formal education, and dark blue is life experience (Global Leadership Excellence, 2017).

 This model suggests order and priority, and it allows educators to develop a criteria list to identify needs while assessing competencies. The model may even help a person decide upon a starting point in a professional development journey. Existing conceptions and understandings of GC need to be uncovered if people are to move forward building global competencies within our digital world.

**Figure 1.**

*Global Competence Model*



Note. From Global Leadership Excellence, 2017, (permission granted)

 Enhancing self-awareness is frequently attempted via action and research and, because “action research

provides more than just the methods for self-studies” (Feldman, Paugh, & Mills, 2004, p.

974), it is a means to grow both professionally and personally because it is “a process of observation, reflection, and action” (Russell & MacPherson, 2001, p. 8). Self-development is critical in action research (Kemmis, 2010) even in the digital age where GC is an important goal in schools, education, and societies worldwide (OECD, 2016; UNESCO, 2015).

**Action Research: A Global Effort**

 The recent 2017 Action Research Network of the Americas (ARNA) Conference and 1st Global Assembly held in the National University of Colombia (Universidad Nacional de Colombia, UNAL) was a time to share accomplishments,

 to think critically about current global issues and to envision the future. Major addresses and dialogue among scholars and activists from the global action research community and leaders of global circles of indigenous knowledge, and presentations of action research and participatory action research focused on education, health and wellness, community development, social reconstruction, and environmental awareness, event participants will have unique opportunities to engage in sharing visions for a better future and creating collaborations and concrete plans for participatory forms of research and development projects across national borders and disciplinary boundaries. (Rowell & Santos, 2016, p. 76-77)

The conference considered the metric of global scale and global movement as something that could happen one AR effort at a time, worldwide. It would require vision and a level of informed global competency. However, to achieve GC via AR, there is a need to formally recognize research action that is strategic, systematic, and provides a means to conduct a logical inquiry (Feldman, Paugh, & Mills, 2004). AR is something that many feel comfortable within and the fact that AR may be thought of as a “series of commitments [and] . . . a series of principles for conducting social enquiry” (McTaggert, 1996, p. 248) which is attractive to many. AR, as the praxis of a social science, has influenced self-study research and is a “useful tool for self-study” (Feldman, Paugh, & Mills, 2004).

 **Teacher identity**

 Because “action research combines a substantive act with a research procedure; it is action disciplined by inquiry, a personal attempt at understanding while engaged in a process of improvement and reform"(Hopkins, 1993, p. 44). These research actions are often deeply personal and, within education, stakeholders invest time and energy, in a deeply personal manner, in things that matter. AR is really a “deliberate way of creating new situations and of telling the story of who we are” (Connelly & Clandinin 1988, p. 153). By studying oneself the educator cultivates awareness and understanding of who they are as an educator via deliberate and planned actions that result in both personal growth and professional development. It is this evolving self-image (identity) that infuses praxes, and relationships which are important since teaching can cause identity loss over time as dilemmas and problems extract physical and psychic energies (Yuan & Burns, 2017). If we do teach who we are, we should at least be in touch with our own identity. This identity can be understood as ‘being recognized as a certain kind of person’ (Gee, 2001), for instance a teacher. Teachers want to have autonomy (self-rule) and AR offers this via self-directed professional development possibilities (Lopes & Cunha, 2017). Even the so called best practices noted in current research espouse self-direction as a powerful PD tool. Now if we can get the attention of the administrators and wave the AR flag there is hope.

**Figure 2.**

*Teacher Identity Components*



*Note.* From Du Plessis & Myllyviita, 2017.

 It is not uncommon for teachers to have multiple identities, one in the classroom, one in the school and one in the larger community and each may change due to experience. As well there are public and private identities that can surface from time-to-time and it is this chameleon like status that can become perplexing for the teacher. At times there is a need to sort out these identities, to revisit actions and re-examine the various paths taken within a professional career. The tools for such re-examination are many yet AR seems to complement the professional educators’ quotient of time, energy and expertise. Educators are observers, accountants, judges, coaches and many other things each day and there is a need for a research mode that suits their timetables and mindset; AR is a flexible companion.

 Action research consists of deliberate experimental moves into the future, which change us because of what we learn in the process” (Connelly & Clandinin 1988, p. 153). The identification and sifting of personal identity arises as the (teacher) action researcher collects data, reflects upon the past, the present, and plans the next cycle, phase, or steps (Creswell & Poth, 2018). However, be mindful that AR “is not a method or a procedure for research but a series of commitments to observe and problematise through practice a series of principles for conducting social enquiry (the praxis of a social science?)” (McTaggert, 1996, p. 248). In doing so the educator enhances and shapes self-awareness (knowing oneself within your culture); it seems action research is well suited to achieve this because AR effort sets in motion a planned strategy to realize an enriched understanding of personal experience and culture via communicative action (Ryan, 2009) that may be protracted, recursive, and fragmentary (Corey, 1953) as the teacher (action researcher) moves through several (phases) cycles of AR.

I n the last century, four action research phases were identified as planning, acting, observing, and reflecting (Lewin, 1948); yet, over time, the AR model was modified by many theorists. Herein, three distinct actions are noted in Figure two. Each cycle is part of a “spiral flow that allows the researcher to reflect on and redesign…action research. It gives the opportunity to the action researcher to go through all the phases again, via a new action cycle and bring additional elements into the study” (Aidinopoulou & Sampson, 2017, p. 239). AR is often viewed as a series of commitments and “is grounded in the ontological ‘I’ of the researcher, and uses a living logic; that is, researchers organize their thinking in terms of what they are experiencing at the moment” (McNiff & Whitehead, 2006, p. 42). These life experiences from moment-to-moment inform and infuse communications (Jones, Torres, & Arminio, 2014).

**Figure 3.**

*One Action Research Cycle/Phase/Step*

Note. Ryan, 2007.

A teacher as action researcher benefits from new understandings budding from reflexive experience wherein reflexivity is the condition of taking account of the teacher personality and presence of the teacher within contexts (Ryan, 2007). Indeed, reflexivity may be a way of “questioning how the processes of teaching, research and analysis have an effect on pedagogical outcomes. This whole process of self-examination has become known as 'reflexivity’” (May, 1998, p. 22). The action research participant may be reflexively working individually or within a group; nonetheless, there is still the personal belief that I am doing action research and it may seem it is about studying oneself but even though “it is done with and for other people. The aim of action research is personal improvement for social transformation, so it is essentially collaborative” (McNiff et al., 1996, p. 30). This foundation links nicely to the dark green layer of being interpersonally capable within the GC model.

 Admittedly, a teacher action researcher engages in planned communication that creates opportunities to share and discover which leads to personal growth (Corey, 1949). The recursive nature of AR is experienced as ideas emerge from cycles of thought, observation, and conversations that are revisited again and again over time in a manner that is, at times, unexpected and intense (Ryan, 2003). As a result, AR can be a time of confusion and uncertainty as we attend to communication in a manner unlike the daily lived experience, while looking within ourselves and upon the unfolding actions (Ryan, 2013b). This experience of acting, reflecting, and revising complements the third layer (light blue area) of the GC model incorporating formal education – in this case through disciplined inquiry that is formalized, planned, and structured.

 As life unfolds, experience accumulates and having the ability to reflect and learn from experience can change one’s life. Within AR reflection is a distinct phase (action), yet many researchers overlook a definition of what reflection is hence the need to suggest,

reflection is a state of mind, an ongoing constituent of practice, not a technique, or curriculum element. Reflective practice can enable practitioners to learn from experience about themselves, their work, and the way they relate to home and work, significant others and wider society and culture. It gives strategies to bring things out into the open, and frame appropriate and searching questions never asked before. It can provide relatively safe and confidential ways to explore and express experiences otherwise difficult to communicate. (Bolton, 2010, p. 3)

Reflection as a phase (mind-set) can infuse the very orientation that surfaces within a disciplined and formal research enterprise requiring self-leading, self-study, and self-determination (Ryan, Young, & Kraglund-Gauthier, 2017). This understanding of reflection connects to experience; culture and the wider society hence form the bond with the GC model with its outer (dark blue) layer integrating life experience, as noted in figure one. AR can cause us to revisit experience, reconstruct the past and the present, which might lead to a new awareness, differing perspectives, and an enriched understanding of self within a culture; furthermore, through a series of social commitments, these outcomes are possible (Ryan et al., 2017; Ryan, 2003).

**Action in AR**

 We are social beings constantly communicating verbally and nonverbally. These communications can lead us to a conclusion that our conversations, either verbal or non-verbal, never really end or begin. We interpret, perceive, and reflect continuously to understand, comprehend, and process our experiences. This same human nature serves us well in AR because it influences our stance toward research and the means to generate new knowledge and understanding (Feldman, 1999).

 Within education we can look at educators who hold implicit theoretical perspectives that emerge through discussions, observations, and experiences; and, we can question these. These communicative experiences produce data that can be scrutinized, challenged, and refined through individual and group activity (Hopkins, 1993) if they are appropriately documented via AR commitments. AR can assume a variety of forms that either suit the individual or collaborative, serving the group; yet, it is necessary to label our enterprise carefully. “Collaborative forms can be collaborations between teachers and outsiders, such as university researchers… or they can be collaborations among teachers,” (Feldman, 1999, p. 125) community members, or other stakeholders.

 What can be confusing for the ARer is that the action in AR might seem completely embedded in day-to-day experiences. For instance, an educator might realize that “conversation can play a significant role in the establishment and sustention of collaborative action research groups, and that it can lead to the generation of new knowledge and understanding” (Feldman, 1999, p. 141). This realization may unsettle those from other research traditions since AR can be a long-lasting and fragmentary process, in which action researchers struggle (tension) to articulate views because they are entrenched within enduring beliefs (values) that might never quite be put into words (tacit). These enduring beliefs (value positions) may be challenged via conversation and new positions emerge that sustain a sense commitment and belonging in the AR enterprise.

 AR conversations are often captured and documented and might prove to be the 'glue' for maintaining the veracity of the AR effort and individual relationships (Feldman, 1999). Documented communications can instill a sense of purpose in the speaker, as if they are on a stage. Conversation “can lead to action, follow action or be part of action. Through the intermingling of conversation and action, praxis comes about with its growth of knowledge, understanding, and theory through action” (Feldman 1999, p. 133).

**AR: Digital Literacy/Fluency/Competency**

 As an action researcher in a digital world, human skills are magnified in importance. Human communications can now go deep, wide, and far on a global scale with the click of an icon or the tap of a button (Ryan, 2013a). Global media (online journal/social media/internet) reaches into all parts of the world making our AR public, because part of the motivation to complete an AR enterprise is to share outcomes to help others, is within reach of most (Putnam & Rock, 2018). Yet this publication effort online requires a level of literacy that dictates efforts in research of all kinds.

 Literacy is a basic human right in a digital world (National Forum on Information Literacy, 2005) and can be characterized as a form of human action in the 21st century that includes digital activities. In fact, there is a need for digital literacy in many AR efforts because it is an ability to “read, select, interpret and evaluate data and information taking into account their pertinence and reliability” (Calvani et al., 2009, p. 187). Each of these abilities proves vital for the globally competent action researcher. Being literate eases the commitments of AR and being digitally literate empowers the action researcher. Being digitally literate and digitally fluent can further aid communication efforts. Indeed, the ability to use digital technology skillfully and meaningfully in a variety of ways allows people to construct “new representational practices, design sensibilities, ownership, and strategic expertise gained, taking a practice-oriented perspective rather than a data, information, or knowledge-centered perspective” (Hsi, 2007, p. 1513).

 The AR commitment today can embrace and include digital action, which seems to be all around us within our global community. This digital action is often challenging, demanding, and transformative; however, it remains elusive because the rapid change of pace caused by technologic innovation creates issues for our community that are well behind the latest technologic innovation. Education needs to support, monitor, and observe technology in a manner that continues to enable users. AR is not without its issues. Critics point out that AR is not always formal, employs often less-than-scientific methods, and that findings are made public by action researchers who are attempting to grow, professionally develop, and locate solutions (Creswell, 2012, p. 578) while dealing with both problems and dilemmas of a digital nature.

**Conclusion**

 The action researcher who is an educator is confronted with digital realities that can both frustrate and ease efforts to grow, change, and solve problems. A globally competent action researcher is a person who is self-aware and uses AR to achieve global competencies. Self-development is not only critical in action research; it is a feature of the GC model. Possessing global competence requires an ability to take action, perhaps using AR to address what matters because the ability to do so is vital in our culturally and politically interconnected twenty-first century. Outcomes may include increased awareness, an opening of the mind to otherness, and a sense of the larger world both within and outside (Putnam & Rock, 2018).

 AR efforts may require a level of digital literacy and fluency, which can be challenging for some who look away from using technology in daily life. Educators, for instance, faced with the proposition of teaching literacy to students who are themselves digital natives (Prensky, 2005) of the twenty-first century (Larson & Marsh, 2015) are looking for solutions and coping mechanisms. Educators need answers because they are “using the same skills used for centuries – analysis, synthesis, and evaluation. However, we must look at digital literacy as another realm within which to apply elements of critical thinking” (Jones-Kavalier & Flannigan, 2006, p. 9). By taking up this digital challenge, there is a need for the commitment to use action research to reach new levels of understanding. In doing so, we may see the global implications of diversity, culture, and history within our schools and larger community. AR can instigate communications as a social process where cycles of thought, reflection, and conversation are reentered over time, to spark insight reflexively in an unanticipated and penetrating manner.

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