Art. # 832, 12 pages, http://www.sajournalofeducation.co.za

Social transformation starts with the self: An autobiographical perspective on the thinking style preferences of an educator

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As an educator I am responsible for my professional development and the professional development of all educators with whom I have scholarly encounters. These encounters involve making a difference in the professional lives of other members of society, for example, in an educational setting with a view to transforming such a society, and transforming the society beyond the boundaries of educational settings. Educators in educational settings, such as schools, universities, and Further Education Colleges should serve their institutions as agents of transformation. As a specialist in educator professional development, specifically in the context of higher education, I look into my contribution to empowering these educators who operate within a micro-education society and to empowering myself. Therefore the point of departure for my research projects in general and the one reported in this article is the self *– my preferences in terms of how I approach facilitating the professional development of different groups of educators and monitoring mine. An array of attributes, values, virtues, constructed meaning, competencies, etc. constitutes the* self. *Data obtained by means of a thinking style questionnaire, the Herrmann Brain Dominance Instrument (HBDI), serves as part of the baseline data for exploring my teaching practice that revolves around educator professional development. Only some baseline data concerning the* self *are reported in this article. Some baseline data relate to other individuals – all involved in transforming themselves, their practices and society in some way as an individual* self. *This, however, is not reported in this article. The focus here is an autobiographical perspective on my thinking style preferences that inform my involvement in educator professional development. The outcome of the analysis of the baseline data pertaining to me includes a mixed-methods approach that complements the continuous action research on the professional development of the* self *over a period of more than ten years. The data reported present a small-scale collection of quantitative and qualitative data. This small-scale view of who I am as education specialist provides evidence that I have specific thinking preferences and avoidances in my teaching practice in general and facilitating professional development interventions in particular.*

Keywords: professional development/interventions, social transformation, thinking preferences

Introduction

In terms of the focus of this article it suffices to indicate that the *self* is considered the core of the ontological underpinning of the intrapersonal scholarly discourse in this article. My intrapersonal scholarly discourse has as aim the enhancement of scholarly discourse within a community of practice. The impetus for such scholarly discourse is scholarly self-talk that I initiate and experience on a daily basis.

However, the ontological underpinning of the research reported in this article

cannot be separated from the epistemological view advocated. The way in which one thinks is an integral part of the *self* – a whole brained person with specific thinking preferences. The latter is aligned with the construct Whole Brain® thinking (Herrmann, 1996).

The point of departure for the scholarly discourse in this article is insight into my thinking style profile. It therefore would be helpful when asking the question: Who am I?

This question relates to one of the sub-questions of my action research project that I am continually executing, namely, *What are my thinking style preferences*? The rationale for including this question is two-fold. Firstly, it generates baseline data regarding the self as a point of departure for any part of my research and practice; secondly, it underscores my ontological stance, namely that any involvement in life – one's existence – for example, contributing to any social transformation of society, starts with the self.

As a specialist in teaching and learning I constantly endeavour to develop my full potential and to instil the same desire into my students and colleagues – hence my quest to be a role model to all.

Theoretical framework

Some theories that inform the sub-question and guide my research stem from different learning theories for adults, such as constructivism (Von Glasersfeld, 2001) and theories on action research (McNiff & Whitehead, 2006), Zuber-Skerritt (2000) and Kember (2000). In a longitudinal process of constructing meaning I have found it imperative to enrich the construct *action research* by reconsidering action research as a Whole Brain® approach to professional development. Consequently I have decided to use the construct *Whole Brain® action research* (WBAR) (Du Toit, 2012). The principles of WBAR serve as a process to monitor my professional learning. Although a rich body of knowledge applicable to my study is documented in the literature, reference is made only to those sources addressed in this article. WBAR is executed with a view to promoting the notion that I can develop my full potential by applying the principles of Whole Brain® thinking.

Additionally WBAR offers me the opportunity to apply the principles of relevant theories in my daily practice as part of the metalearning (Biggs, 2003) approach I follow in terms of my professional development. In Biggs's (2003) model of metalearning, which I refer to as Whole Brain® professional metalearning, the following is important: The pre-phase that consists of two *domains* that are applicable to my existence, namely, the *self* and environmental contexts. These inevitably include Whole Brain® thinking – my personal HBDI® profile and a professional learning environment that would promote Whole Brain® thinking and challenges. Addressing the challenges and executing applicable tasks require the application of the principles of WBAR or Whole Brain® self-regulated professional learning. The end products I

construct, such as learning opportunities for my students or learning material, should be viewed from a Whole Brain® thinking perspective. The challenges that present themselves in the form of tasks serve as authentic professional learning opportunities that are work-based. WBAR has become the core of my practice and professional learning process and its principles. As reported in Du Toit (2012), I consider my practice to be WBAR-driven. As I am involved in the professional development of other educators I initiate the establishment of communities of practice. In this way the WBAR I engage includes other *self*s that translate into participatory or collaborative WBAR. An appropriate abbreviation would be PWBAR (Participatory Whole Brain® Action Research). Such participatory research is aligned with the ideas of Darwin and Palmer (2009), Mullen (2000), and Kemmis and McTaggart (2005) and implies scholarly discourse which is analogous to the notion of conversation that Haigh (2006) advocates.

The core theoretical framework of the communities of practice I refer to is action research and Whole Brain® thinking. It is therefore significant that members of a community of practice would ask themselves the same ontological question that gives direction to my research: *Who am I?* It would also provide scholarly evidence should they make use of the same instrument (HBDI) to identify their thinking style preferences.

Analogous to the work of Klasen and Clutterbuck (2002), Kember (2000), and Jipson and Paley (2000), which is applicable to the context of mentoring, a community of practice functions within a Whole Brain® socio-constructivist context – a mutually reciprocal Whole Brain® scholarly activity that promotes Whole Brain® professional learning.

As part of my living or lived theory (McNiff, 2002) I have come to construct new meaning for the constructs with which I work. Working with Herrmann's (1996) theory on Whole Brain® thinking has enriched my own thinking about these constructs and helped me to perceive them from a more holistic, whole and multidimensional perspective, underpinned by the epistemology and ontology already referred to. The Whole Brain® thinking theory of Herrmann (1996) forms part of the scholarship of teaching and learning, especially regarding my multidimensional practice: it enriches my teaching and research, assessment, curriculum development, mentoring, research supervision, etc. At the same time it enriches my scholarship of teaching and learning in general in order to initiate scholarly discourse, establish communities of practice and promote scholarship of teaching and learning in other education contexts. These actions validate the claim I make, namely, that I am continually constructing new meaning.

Integrating different aspects of my practice, in other words integrating different theories and constructing my own living theory (McNiff & Whitehead, 2006), is typical of my thinking style as represented by my HBDI® profile (See Figure 1). Knowledge of my thinking style preferences has become part of my metacognitive

knowledge (Biggs, 2003) that I need to develop into a Whole Brain® self-regulated practitioner. I construct new meaning by applying the principles of metalearning/ self-regulated professional learning with a view to developing the constructs as Jackson (2004) suggests. I have come to realise, by constructing meaning, that Whole Brain® thinking is the golden thread in weaving the tapestry that reflects my multidimensional teaching practice and the complementary scholarly enactment of all the roles I play.

Constructing new meaning as part of a constructivist (Von Glasersfeld, 2001) approach to my professional learning has become a challenge, as I expect myself to construct new meaning from experience, scholarly discourse, scholarly self-talk and studying relevant literature, etc. My construct is Whole Brain© self-regulated professional learning. It is evident that WBAR constitutes an essential part of the theoretical framework of my research as my teaching practice is action research-driven.

Constructing new meaning is about what it is that I do and what I claim to be doing while pursuing my educational values (McNiff, 2002) and virtues (Slabbert, De Kock & Hattingh, 2009). What I have learnt from implementing WBAR is not so much about contributing to the current body of knowledge by adding new facts, but about activating others – students and colleagues – to construct their own meaning.

I use WBAR continually as it substantiates my epistemological stance to construct new meaning about my practice and contributes to the current body of knowledge on educator professional development. In becoming more and more constructivist in my thinking and doing, and holistic as a practitioner, the ontological question asked initially, namely, *Who am I?* is enriched by the notion of being a Whole Brain® person, although never complete. As my theoretical framework has Whole Brain® thinking as focal point, combining the construct Whole Brain® thinking and the construct WBAR has contributed to my process of scholarly meaning-making.

Research design and method

WBAR forms the research design that I consider to be a research paradigm in its own right. This design is complemented by a mixed-methods approach. Only one instrument that generates both quantitative and qualitative data is reported on in this article. As already indicated the method used to answer the sub-question addressed in this article is a questionnaire, namely the HBDI. I use the outcome of the questionnaire, in the form of a brain profile, to substantiate the claim I make, namely, that it is imperative to adapt one's style of facilitating learning with a view to accommodating others and to activating them to allow themselves to develop beyond their preferred way of doing. The quantitative aspects of my own profile are substantiated by means of the Herrmann International (2006) scoring system as represented in Figure 1. This is followed by a brief qualitative narrative provided by Herrmann International (2006).

There are a number of good reasons for using the HBDI as a means of individual and group reflection (Coffield, Moseley, Hall & Ecclestone, 2004). As reflection is an

important part of action research, I consider the HBDI a research instrument that can promote scholarly reflection as proposed by Fringe (2012). When combining the ideas about reflection that Jasper (2006) and other scholars hold with scholarship of teaching and the theory on Whole Brain® thinking (Du Toit, 2012), the new construct I use is *Whole Brain® scholarly reflection* (WBSR). This construct is one that I use in my WBAR and in my scholarly discourse with others in communities of practice. The WBSR I use has as focus one's thinking style preferences; one's reflection thereby becomes focused.

The HBDI consists of 120 items. In broad terms it identifies one's dominant thinking style preferences. The following style categories are applicable: Theorists (the rational self); Organisers (the safe-keeping self); Innovators (the experimental self) and Humanitarians (the feeling self). It is important to identify one's thinking style. One should know that as theorist one prefers fact-based tasks; when identified as organiser one prefers being involved in tasks that require planning and organising; identified as humanitarian one favours tasks that require the involvement of others; as innovator one is interested in working with new ideas. However, it is of great importance to look into the differences between the different styles as they have implications for communication with others, problem solving (individually and in teams), etc. In scholarly discourse or communication in communities of practice, these differences should be kept in mind. Individuals with preferred styles may find it difficult to accommodate other styles. For example, theorists might find it difficult to accommodate the feeling self; organisers might find it difficult to accommodate the experimental self; innovators might find it difficult to accommodate the safe-keeping self; accommodators the rational self.

The HBDI is a self-report instrument. Coffield et al. (2004) report on the validity of the instrument and refer to the fact that it has good face, factorial and construct validity. They link good face validity to the fact that the HBDI relates to one's life experience and therefore regard it as an instrument with authentic quality. They mention that sound statistical analyses were done by Bunderson and Ho (Coffield et al., 2004).

With a view to contributing to the reader's understanding of the interpretation of the data from the completion of the HBDI, I offer a brief overview of the Whole Brain® model (Herrmann, 1996) and a simplified way of interpreting the quantitative aspects that are relevant to my article. The model is represented in Figure 1.

Figure 1 represents in a metaphoric way Herrmann's (1996) understanding of the function of the brain. He identified four distinct modes of thinking. Each quadrant has its own clusters of modes of thinking. What can be derived from the figure is that the A-quadrant has a focus on logic and analytical thinking that revolves around, for example, facts and quantitative measures. The B-quadrant is, *inter alia*, about being sequential in one's thinking processes; being organised, detailed and planned when executing a task. The C-quadrant is more about emotive thinking where interpersonal

relations are prominent and feeling-based thinking and kinaesthetic movement, for example, contribute to one's thinking and executing tasks. The D-quadrant reflects thinking in a holistic way, which may include synthesising, integrating, visuals, thinking intuitively, etc. These modes of thinking inform, among other things, one's approach to problem solving, communication, and ways of facilitating and assessing learning.

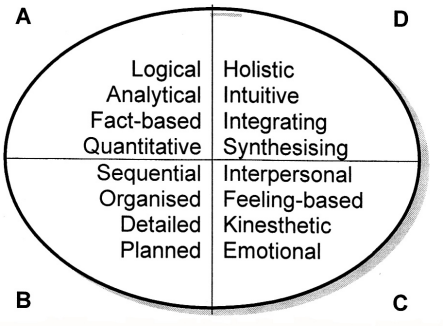

Figure 1 Visual representation of the Whole Brain® model (adapted from Herrmann, cited in Du Toit, 2012)

Different profiles are to be identified depending on the responses of each individual respondent. The profile indicates the dominant quadrant(s) and the extent to which it is dominant. Dominancy may lie in one quadrant – single dominant profile; two quadrants – double dominant profile; three quadrants – triple dominant profile; or all four quadrants – quadruple dominant profile. Only 5% of the population tested by means of the HBDI reflect this last type of profile. As this article focuses on my profile which is double dominant, a short description of how such a profile is constituted is presented next.

A 1 indicates a primary preference; 2 indicates a secondary preference and 3 a tertiary preference which may even indicate an avoidance for the applicable mode of thinking. The combination of these pairs is referred to as a preference code. The adjective pairs are made up of one of the sections of the questionnaire. The items 'force' the respondent to choose between attributes that are opposites. This is indicated as key descriptors and work elements in table format. The profile scores are indicated by means of a value as derived from the figures on the diagonal axes. The total percentage of the entire score is indicated.

Table 1 reflects my scores per quadrant in terms of the elements briefly alluded to above. A narrative description of key descriptors and work elements as derived from responses to different sections of the questionnaire is provided, following the scores.

Table 1 Scoring of preferred attributes of my profile (Herrmann International, 2006)

Quadrant	A	B	C	D
Preference code	3	2	1	1
Adjective pairs	2	2	11	9
Profile score	30	39	108	128
Key descriptors	None	Speaker	Emotional* Musical Intuitive Talker	Imaginative Artistic Intuitive Holistic Synthesiser
Work elements (only according to highest score)	None	None	Teaching Writing Interpersonal	Creative

* Most descriptive

The next visual (including quantitative data), and subsequent discussions (qualitative data) are the outcome of my completing the HBDI. The detail is from Herrmann International (2006).

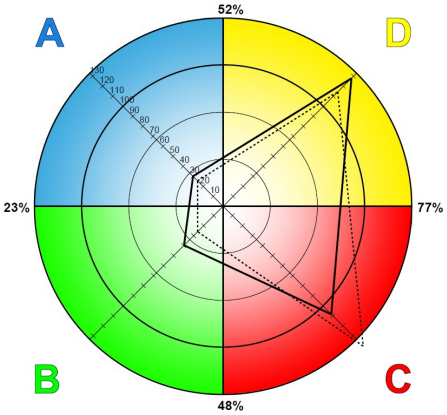

Figure 2 Visual representation of my thinking profile

Ethical clearance for the use of this profile as empirical data has been obtained from different entities of the University of Pretoria, namely, the Ethics Committee of the Faculty of Engineering, Build Environment and Information Science (Department of Information Science), the Ethics Committee of the Faculty of Health Sciences

(Department of Family Medicine) and the Ethics Committee of the Faculty of Economic and Management Sciences (Department of Taxation) for respective longitudinal projects on the application of Whole Brain® principles in higher education and staff development.

The profile code as tabled above (see Table 1) indicates a preference code of 3211, indicating the level of preference for each quadrant. For the A-quadrant my preference is tertiary (3) – indicating an avoidance; for the B-quadrant it is secondary (2), and for the C- and D-quadrants it is primary (1), with the highest score on D.

According to the narrative provided with the HBDI profile my most preferred thinking style is the D-quadrant. I selected descriptors such as *Synthesiser*, *Artistic*, *Holistic* and *Intuitive*, all of which are indicative of my preferred way of dealing with situations in day-to-day life. For work-related situations, I selected descriptors such as *Creative*, *Integrating* and *Innovative*. The second most dominant quadrant is the C-quadrant. *Musical*, *Talker*, *Intuitive* and *Emotional* are the descriptors chosen, with *Emotional* as the key descriptor. Among the choice of descriptors, *Emotional* is the one that describes me best. For work elements from this quadrant, I selected *Teaching*, *Writing* and *Interpersonal*. My least preferred quadrant proved to be the A-quadrant.

Regarding communication – especially communication between my students, colleagues and me – which is essential in my practice and scholarly discourse in communities of practice, my most comfortable approaches may include allowing time to explore, giving a conceptual framework, establishing rapport, involving others and anticipating how others feel. What may be overlooked during communication are critical analysis, a written schedule and plan, a step-by-step approach and technical accuracy.

It is noteworthy to observe that the dotted line (See Figure 2) represents my stress profile. When under pressure I tend to react contrary to expectation. Depending on the context, my thinking style may or may not be consistent with my general behaviour. When comparing my stress profile with my natural thinking style profile regarding the A-quadrant it remains more or less the same. Under stress the B-quadrant becomes to some extent more dominant while the D-quadrant recedes somewhat and the C-quadrant becomes significantly more dominant. While not perfectly aligned with my profile, it is not radically out of alignment either. However, when under stress, I would rather, in the case of research for example, start re-organising and re-scheduling activities and responsibilities such as executing and completing a research output. However, it might not focus on the 'right things' but rather insignificant aspects that do not have an immediate effect on improving the current situation. In terms of the C-quadrant I tend to start focusing on including more people in the task at hand to ensure corroboration, which contributes to substantiating my ideas – forming a community of practice.

It should be kept in mind that I will always have my preferences. I have completed the HBDI three times within intervals of one year. The outcome remained virtually the

same. What is important is to see the profile as a rubber band that can be stretched according to the expectations of a task at hand. After executing the task it will go back to its original 'resting place'. This is because of the fact that the HBDI is about preferences and not abilities. Since I do not show a high preference for the B-quadrant it does not mean that I cannot organise a conference, for example. I have organised two international conferences with great success – one on action research and one on higher education. However, should I be asked to organise another conference, I doubt that I will accept another such challenge.

Against the background of my profile as described above, it should be significant to look at exemplars of my students' and colleagues' expectations for each quadrant and what they struggle with. This, however, is not reported in this article in detail. An array of profiles was determined within different research projects. In each of the composite groups in the respective projects ranging from $n = 19$ to $n = 30$ the preference code is 1-1-1-1, which is significant for my practice. This indicates that each of these groups as a composite represents a Whole Brain® group that challenges me to accommodate students in all the quadrants. The following exemplars are offered to suffice in this regard.

According to Du Toit (2012) students from the A-quadrant may prefer the attributes indicated in Figure 1. As I do not have a preference for A-quadrant modes of thinking I may neglect students from this quadrant. However, I attempt to be balanced in terms of designing and offering learning and assessment opportunities. This balance is my biggest challenge as I believe in accommodating students according to their preferred modes of thinking; it goes without saying that this constantly takes me out of my 'comfort zone'. An array of ways of facilitating learning is deployed, such as group work which students with a preference for the C-quadrant appreciate. From time to time structured PowerPoint presentations are scheduled to accommodate the B-quadrant students and I design my study manuals in such a way that those students who prefer structured and sequential learning are accommodated. Tests to be written accommodate fact-based (A-quadrant) students. D-quadrant students are accommodated when they are confronted with a real-life experience such as presenting a learning opportunity during, for example, work-based assessment or teaching practice.

I realise that I have to adapt to accommodate my students and colleagues who have different preferences and that I should challenge them to approach their professional development and their involvement in transforming society by means of other modes of thinking in order to develop their potential fully. This would mean that from time to time I, as the lecturer, should *think out of the box*. Du Toit (2012:1220) aptly explains why he looked at this slogan from a Whole Brain® point of view and changed it as follows:

> Typical of my constructivist stance, I critically evaluated this commonly used slogan, but then realised that what it actually should say is: *Thinking out of* ***my*** *box!* – keeping the construct of brain profiling in mind. It would be common to

expect that the notion of *thinking out of the box* would imply that I as lecturer should think and do in line with attributes of the D-quadrant. However, as a lecturer with a marked preference for the D-quadrant I have to challenge myself to think outside the D-quadrant – *out of my box*. As a lecturer with a strong preference for the C-quadrant I should, for example, be challenged to put aside my strong C-box preference and instead, think and act according to the A- or B-quadrant. I as lecturer should therefore learn how to use *out-of-my-box* thinking and act to develop my full potential.

Developing my full potential and sharing it with other scholars is part of the responsibilities of acting as role model. As role model one should *inter alia* enact leadership skills. Accepting a leadership role would mean that I need to mentor other people in terms of my educational values, constructing meaning, etc. As a leader I am in the prime position to build capacity among communities of practice from my intrapersonal point of view. Building capacity includes self-capacity and the capacity of other scholars and students. Part of the capacity building is the *self* – enquiring about the *self*. This means that I as mentor, leader, scholar, education practitioner, etc. should become knowledgeable about what constitutes the *self* and how I can be developed as leader as advocated by Rooke and Torbert (2005). From a constructivist point of view I endeavour to enhance the quality of my self-enquiring scholar/leadership. In the context of this article I consider myself as an individual who is constituted as a self-enquiring Whole Brain® scholar, self-enquiring Whole Brain® mentor, self-enquiring Whole Brain® leader, self-enquiring Whole Brain® education practitioner, etc.

Conclusion

This article focuses on the question *Who am I?* Since it is an ontological question it prompted me to answer it in academic terms. It also challenged me to look at it from an autobiographical point of view. What I report in this article is only a fraction of my *self*.

The data analysed explicate my way of thinking and doing – my thinking style preferences, how I prefer to communicate in a scholarly context, how I enact scholarship of teaching and learning, how I facilitate learning, etc. By no means do the data offer a complete picture of who I am as scholar and education practitioner. They do, however, serve as an indicator of what is to be expected in terms of any research project I have been or will be involved in. As my continuous professional development is a cyclical process I have opted for an action research design that is considered the most appropriate way of approaching one's growth as professional. My professional growth includes a scholarly construct of meaning and scholarly reflection. In reflecting on my constructing meaning in this article it can be said that I have learned a great deal in terms of who I am. As is clear from the visual representation of my brain profile I am dominant in the C- and D-quadrants. Therefore the visual makes sense to me. So,

if I want to know who I am, it suffices to look at the picture.

I would like to conclude by asking the reader, my peers and other scholars: *Who are you in terms of your thinking style preferences?*

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