Affective and Embodied Pedagogy as Pathways to Equity in Education and Curriculum Responsiveness

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The question of equity in the South African educational landscape and particularly in the curriculum at all levels cannot be over emphasised, however achieving this equity has proven to be daunting task. The purpose of this article is to explore affective and embodied pedagogy as alternative pathways to equity in curriculum and responsiveness. Hamilton (2007) argues that beyond the idea that equity is morally right, striving for radical educational equity, is a winning strategy for all learners regardless of their background. With resistance to the drive to achieve equity almost guaran-teed, questions arise on how to achieve the same and ensure that curriculum responsiveness takes places for all learners/students. This paper seeks to answer the question. This paper theorised affective and embodied pedagogy, and generated pathways or forces which can be used to establish equity and responsiveness in education. The paper proposes diffractive physicality, social vulnerability and rhizomatic spatiality as the key constructs for equity and responsiveness. The paper concludes that affective and embodied pedagogy can be used as pathways to achieve equity in curriculum and responsiveness.

Keywords: embodied, equity, curriculum, affective, pedagogy, responsiveness

Introduction

The educational landscape in South Africa be it at the basic or higher education levels is a complex one marred by a rich history of discrimination, subjugation and colonialism aimed at creating a system which lacks equity and social justice. Donohue and Bornman (2014) argue that education in

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South Africa as we see it today both at the basic level and at the higher education level is partially as a result of the vestiges of apartheid educational policies which sought to provide different education for different racial groups. This resulted in the disparities currently being witnessed in the education sector, regardless of the fact the government has been trying to address this since the advent of democracy. Engelbrecht (2006: 254) concurs with this when he argues that,

> the central feature which distinguishes South Africa from other countries in terms of education provision, is the extent to which racially entrenched attitudes and the institutionalisation of discriminatory practices led to extreme disparities in the delivery of education, a reflection of the fragmentation and inequality that characterised society as a whole.

Such fragmentation would always stand in the way of equity and responsiveness because it was designed to do exactly that. Fomunyam *et al.* (2020: 47) further add that,

> The education landscape under apartheid South Africa was skewed in ways designed to entrench the power and privilege of the ruling white minority. At the beginning of 1994, South Africa's education system was fragmented and uncoordinated. This was primarily the result of the white apartheid government's conception of race and the politics of race, which had shaped education policy framework that it laid down during the1950s …. Enforced racial segregation resulted in a plethora of institutions to cater for specific racial and language groups, which were managed and professionally staffed mostly by white males.

The lack of equity in the educational terrain in South Africa cannot be debated regardless of the efforts put in by the democratic government. For twenty-eight years, such efforts have yielded limited fruits as South Africa still falls on both side of the spectrum where on the one hand, she has one of the best schools or systems in the world and on the other hand it has one of the worst in the world. This disparity has resulted in the lack of responsiveness in the education sector as both learners/ students and staff are battling

to make the most of the education system. Fomunyam (2017c) argues that as a result of these inequalities, learner/ student performance in South African has increasingly dropped and this reflected in the hundreds of thousands of learners and students who drop out of school every year. He adds that several explanations have been provided by several researchers as the reason for this phenomenon, and several solutions have been propounded though the challenges persist. From this perspective, it can be categorically stated that there is a problem of equity and curriculum responsiveness within the South African educational landscape. As such it is vital to explore alternative pathways to address the issues of equity and curriculum responsiveness. Affective and embodied pedagogies can be looked upon as alternatives to the already existing approaches. With affective pedagogy leaning towards equity and how it can be enacted and achieved and embodied pedagogy leaning towards responsiveness. This article looks at affective and embodied pedagogy as alternative pathways to achieving equity and curriculum responsiveness. However, before getting into the details of this, it is important to first of all explore the notion of equity, and curriculum responsiveness.

Equity in the South African Educational Landscape

Sen (2009) defines equity as impartiality, fairness, and justice within a particular society. It also relates to equal opportunities and the availability of the same to all and sundry within the said society. Ismail (2015) argues that history has shown that equity or equity inspired goals like in the case of education is not always easy to attain, as such are never practically achieved. In cases where they seem to have been achieved economic, political, and cultural changes/stability or instability can make such changes meaningless. The fight for equity therefore is a continuous one and every government must always strive to achieve this in their society. Ismail (2015) continues that some of the reasons cited for the lack of equity centre around the fact that everyone in the society doesn't have equal resources or abilities. Secondly, structural poverty excludes those who are poor, and some religious or cultural practices discriminate against gender lines, disability, or age. These amongst other reasons have also been advanced as being amongst the reasons for the lack of equity in the South African educational landscape. Fiske and Ladd (2004: x) argued that,

> South Africa's experience is compelling because of the magnitude and starkness of the initial disparities and of the changes required. Few, if any, new democratic governments have had to work with an education system as egregiously and intentionally inequitable as the one that the apartheid regime bequeathed to the new black-run government in 1994. Moreover, few governments have ever assumed power with as strong a mandate to work for racial justice. Thus, the South African experience offers an opportunity to examine in bold relief the possibilities and limitations of achieving a racially equitable education system in a context where such equity is a prime objective.

It is interesting to note that eighteen years after this assertion, the question of equity is still a difficult one to answer and South Africa still remains the very definition of an unequal society. Elaborating on this, Alvaredo *et al.* (2018: 154) posit that South Africa has been touted to be the most unequal country in the world as ten percent of South Africans control ninety percent of national wealth and sixty-five percent of national income and this is the largest 90-10 gap in the world. This inequality has consistently manifested itself in the educational sector. Spaull (2019) confirms this when he argues that more than twenty-four years after apartheid, the life chances of the proletariat in South Africa are orchestrated not necessarily by their hard-work or abilities of the results therein, but by the wealth of their parents and or grandparents, the race they belong to and the region or province they hail from. And these circumstances are so rived to a point that before a child reaches ten years old,

> one can predict with some precision whether they will inherit a life of chronic poverty and sustained unemployment or a dignified life and meaningful work. The sheer magnitude of these inequities is incredible. The top 200 high schools in the country have more students achieving distinctions in mathematics or Physical Science (80%+) than the remaining 6,476 high schools combined. Put differently, 3% of South African high schools create more Mathematics or Physical Science distinctions than the remaining 97% put together. Of those 200 schools, 185 are former White-only schools and all 185 charge significant fees. Although they are now

> deracialized, 57% of the matric in these top 200 schools were White (Spaull 2019: 1).

This disparity in the education system indicates that those who can afford to go to these high achieving schools will always do better for themselves and continue the circle thereby keeping the inequalities going. And since academic performance is directly related to wealth creation and sustenance, the graduates from these schools go on to further strengthen the inequalities in the society.

Schotte *et al.* (2018) argue that race is a strong indicator or predictor of poverty in South Africa, as those classified as chronically poor are almost exclusively black Africans. Since the two hundred schools collect signifycantly high tuition fees, most majority of the blacks who are chronically poor can't afford to send their kids to these schools, meaning that they would always one way or another be behind those of other races. Schotte *et al.* (2018: 98) continue that,

> Coloureds, by contrast, seem to be more heavily concentrated amongst the transient poor and the stable middle class, facing somewhat lower risks of downward mobility. Although Africans constitute the largest proportion of the middle class today – with a trend of growth in recent years, … their share among the two top groups remains far from demographically representative. That is, while Africans make up approximately 80 percent of the total population, in 2014/15 they made up just above 50 percent of the middle class. On the other hand, while whites constitute a mere 10 percent of the population, almost one in three members of the middle class and two in three members of the elite are white.

The poor will always lack basic amenities and the ability to help their children build better social, cultural, and political capital which they need to build economic capital and change their lot within the society. The lack of adequate social and cultural capital means that the children of the poor are unable to compete with the children of the rich in the knowledge construction process, thereby continuing the cycle of inequality. Schotte *et al.* (2018: 98) conclude that there is a strong relationship between the level of education the head of a household has and the social class to which the family belong, and

this is also the same for individuals. Leaders of chronically poor households most often than not are uneducated, having not more than five years of primary education in most cases. Meanwhile leaders of transient poor families as well as the vulnerable usually have some level of secondary education. In the case of middle-class households, their leaders most often completed secondary education. When it comes to heads of elite households, the leader most often has some level of tertiary education. These levels of education also dictate the access to the labour market as the chronically poor most often are unemployed and economically inactive while the elite have well-paying jobs.

Spaull (2013) and Fomunyam (2017b) argue that this inequality doesn't only apply in the basic education sector but is also rampant in higher education as evident in the massive dropout rates witness amongst black South Africans. They continue that about forty percent of first years drop out in their second year and this number rises to sixty-five percent by the third year. Only about twenty percent complete the degree within the three-year period and a further ten percent in the fourth and fifth year. Participation rates in South African higher education is still very low and the few who are already in the system end up dropping out because of high tuition rates. The inequality in participation and graduation rates along racial and gender lines is further expounded upon by Fomunyam (2017a) when he looked at these statistics in relation to engineering education. Fomunyam posits that as of 2015, there were 16 423 professional engineers registered with the Engineering Council of South Africa and almost 70percent of them were white. To put it more clearly, 199 were coloureds, 967 were Indians, 1496 were black African, and 13794 were white. To add to this, of the 16423 registered engineers, only 713 were females while the rest were male. In 2016, 504 additional professional engineers were registered with the council and out of the 504, only 66 were female and the rest were male. Furthermore, of the 504 newly registered professional engineers, 9 were coloureds, 60 were Indians, 158 were African and 277 were white. There is no doubt that recent figures would reflect similar sentiments as has already been articulated. These racial imbalances speak to the need for equity.

Curriculum Responsiveness

Curriculum has been theorised and understood from multiple perspectives, and there is no consensus on what the term means or should mean and how

we should go about working it. However, one of the things all curriculum scholars agree on according to Nieuwenhuis *et al.* (2021) is the need for responsiveness in curriculum regardless of the approach engaged or the meaning we give to the term.

Curriculum responsiveness has been defined from multiple perspectives. For example, Vreuls *et al.* (2022) define curriculum responsiveness as the curriculum's ability to translate knowledge about new developments into curriculum content and structure and vice versa. This means curriculum responsiveness is the ability of the curriculum to respond swiftly to changes in the educational architecture of students as well as to the society in which they live. Fomunyam and Teferra (2017) define curriculum responsiveness as the ability of the curriculum to respond to student needs at all levels. This means the curriculum being enacted in the educational ecosphere should be able to meet the needs of the students from at least four dimensions which are economic, disciplinary, pedagogical, and cultural. Moll (2004) calls this the dimensions of curriculum responsiveness.

Economic responsiveness according to Moll (2004) refers to the curriculum's ability to train skilled and employable professionals in multiple or different sectors of the economy. It is not just about obtaining degrees in a particular discipline like education, engineering, marketing and or management amongst others, but particularly about success of the program or discipline in reaching or building employable skills or achieving employment outcomes for their graduates. As such, graduates within such disciplines would not only be employable but would be able to use the skills they have developed to creating employment for themselves or developing solutions to the current challenges in the sector which they find themselves.

Disciplinary responsiveness on the other hand focuses on the curriculum's ability to stay up to date with the innovations and new discoveries in the discipline (Vreuls *et al.* 2022). It deals with the promotion of new knowledge within the discipline as a way of ensuring that students are up to date with all the new knowledge and are able to use the same within the different context, they find themselves upon graduation or even before the graduate. This is particularly important because,

> problems of unemployment are increasingly attributed to the failure of the individual to be employable, rather than to a structural feature of the economy at a particular moment (Wedekind 2019: 80).

With the responsibility being laid at the feet of the individual, the curriculum must ensure that such an individual is up to date about the discipline. Fomunyam and Teferra (2017) add that curriculum is tortuously need together by a community of scholarship whose work is directed by the dictates of the discipline. Some or most of these scholarships often fail to engage the realities of everyday life making knowledge production and consumption devoid of context to a certain extend. Moll (2004: 8) posits that,

> disciplinary responsiveness can be taken to mean that the curriculum is responsive to the nature of its underlying knowledge discipline by ensuring a close coupling between the way in which knowledge is produced and the way students are educated and trained in the discipline area.

These close relationship between knowledge production and the education of the individual would work together to produce graduates who are grounded in the discipline and not just knowledgeable about the specific content they were taught during the teaching and learning process.

Pedagogical or learning responsiveness as it is often called is the ability of the curriculum to respond to student needs (Moll 2004). Since the makeup of every classroom is different with students coming from different racial, social, and economic backgrounds, and possessing different levels of social and cultural capital, their needs are different and it's the curriculum's responsibility to respond to these needs with regards to learning and teaching. Ferdinand (2009) adds that if the curriculum fails to achieve pedagogical responsiveness, it means no meaningful learning has taken place or will take place for the learner. The one size fits all approaches are outdated and has proven unreliable time and time again as such student individual needs must be taken into consideration for learning responsiveness to be achieved. Fomunyam and Teferra (2017) conclude that almost all students entering the higher education sector are already at a disadvantage as a result of the poor quality of the basic education (Fomunyam 2017c) and if their needs are not taken into consideration, there is no way they would develop to become lifelong learners even if they end of graduating from the university which in most cases is often very unlikely. Pedagogical responsive goes a long way in the drive to foster over all curriculum responsiveness thereby ensuring that students get the best of education.

The last dimension of curriculum responsiveness is cultural responsiveness, and this relates to the tendencies of the curriculum to address the cultural dissonance most often found in the classroom (Moll 2004). Such dissonance manifest itself in different ways from racial diversity to ethnic or social differences. Religious differences also often contribute to the dissonance both for students and staff since religion informs the different ways in which and individual sees and understands certain things. With corrosive nature of South Africa's discriminatory past, failing to recognize the cultural diversity in the classroom would be tantamount to failure not only in achieving responsiveness but the failure of the educational enterprise as a whole. Cultural responsiveness to Fomunyam and Teferra (2017) centres on the teacher or lecturer's ability to understand and work with the cultural characteristics of the individuals in the classroom, thereby ensuring that all the cultural capital they possess work together in the co-construction of knowledge. This would give every student the opportunity to contribute not only in their development but also in those of others in their classroom. With the internationalisation of education currently the order of the day, achieving cultural responsiveness is not only vital but an integral part of the learning process.

Pedagogy as a Confluence for Equity and Responsiveness

Multiple approaches have been developed by researchers on how to achieve equity in South African education (Spaull 2013; Spaull 2019; Strom & Martin 2015; Strom *et al.* 2018; Vreuls *et al.* 2022; Wedekind 2019), as well as numerous findings and why the same hasn't been achieved yet. For example Ismail (2015) argues for policy and collaboration amongst stake holders as a pathway to equity in education, while Wedekind (2019) argues for three pillars; regulative, normative and cultural-cognitive pillars as what must be engaged. Spaull (2019) on the other hand talks about the distribution of teachers, and educational resources. He particularly posits that,

> there is no route to a more equitable South African education system that does not first chart the path of the development and distribution of teachers, and secondly who has access to the functional part of the schooling system …. Providing teachers with meaningful learning opportunities, being more selective about who is accepted to teacher training programs, incentivizing the best teachers to teach in the most

> challenging contexts, eradicating infrastructure backlogs, providing high quality early childhood education opportunities ... are not possible without significant additional resources (Spaull 2019:16).

This paper recognises the contributions already made to this process but seeks to add an alternative approach from a pedagogical perspective. Here, I theorise affective and embodied pedagogy as an alternative pathway vis a vis the other solutions to achieving equity and responsiveness.

Abadía (2021) argue that an affect focuses on increasing or decreasing the power of acting, both for the mind and body. As such an affective pedagogy is a way of teaching which is designed to spark or create a particular emotional state, in the mind and a resultant action through the body. To this end, an affective pedagogy seeks to shape a relational and non-binary perspective on co-dependency or mutual involvement of knowledge and material conditions, or students and lecturers, learners and teachers, physical bodies, and socio-economic relations. Hickey-Moody and Harrison (2018: 3) concur with this and argue that an 'affective pedagogy reminds us that learning is also a politics of materiality and affectivity, a politics of socio-economic and physical bodies, school spaces and the emotional lives of students and their teachers'. Such a pedagogy has the possibility of awakening in both students and teachers the right kind of consciousness and zeal to work differently towards increasing the gains of equity. Grossberg (1997: 387) adds that affective pedagogy creates unusual possibilities gearing towards the co-production of open-ended processes which have the potential of producing unimagined and even unimaginable outcomes. These outcomes which are never predefined, have as objective to empower students to reconstruct their worldviews

Nguyen and Larson (2015: 332) define 'embodied pedagogy as learning that joins body and mind in a physical and mental act of knowledge construction'. Such a union is about the thoughtful consciousness or awareness of body, space, and social context. Through embodied pedagogy curricula can be used to facilitate powerful experiences of shared knowledge construction for learners. Nguyen and Larson (2015) articulate three key constructs of embodied pedagogy that are critical to the argument being made here. Firstly, embodied pedagogy sees curriculum content as having an inbuild physical component. Education always gears towards the development of one skill or another and at one point or another this skill is physical

in nature. In music it could be playing an instrument, in teacher education, gestures, movements and body language in the sciences and engineering handling a particular equipment or building a machine or device. Secondly, embodied pedagogy sees curriculum content as a tool to facilitate socially-based classroom performance or the unification of mind/ body in learning. Such facilitation happens within the context of semi-structured classroom performances, so as to analytically enact social dynamics. In other words, both students and teachers paying attention to their emotions and bodily sensations as part of knowledge construction artefacts. Finally, embodied pedagogy sees curriculum content as containing implied spatial qualities. These concerns itself with the part of the curriculum which have concept-tually spatial subject matter, such as mathematics or physics. This spatiality would work towards the development of the mental ability within specific sociocultural context to parley consciousness at all levels. McDonough *et al.* (2016) add that using embodied pedagogy empowers both the student and the lecturer or teacher to break through existing or perceived barriers and challenge dominant ideologies and epistemologies.

There are about six key constructs within the affective and embodied pedagogy and these are diffractive reading, vulnerability, and rhizomatic thinking, physicality, sociality, and spatiality *(Abadía 2021; McDonough et al.* 2016; Nguyen & Larson 2015). To make the theory more applicable in the drive to improve equity and responsiveness, I brought together the six key constructs of the two theories to create a more coordinate construct to be used within the confines of this paper. This reengineering produced three new concepts or constructs which I called diffractive physicality, social vulnerability, and rhizomatic spatiality the which can be used to influence or cater for equity and responsiveness.

Diffractive Physicality

Barad (2007) argues that diffraction is a physical phenomenon which concerns itself with the bending and or spreading of waves when such meet an obstacle or when the waves combine. Such diffractive bending and or spreading have more recently been used as metaphors of innovative approaches in a variety of fields including education. Diffraction is physical and necessitates the reconsideration of difference (like difference between the schools in the different quintiles or difference between traditional universities and

universities of technology or research intensive-led univer-sities and teaching universities) beyond binary oppositions. It demands the shifting of understanding of difference from 'oppositional to differential, from static to dynamic, and our ideas of knowledge from reflective judgment to embedded involvement' (Abadía 2021: 107). Since such oppositional or static thinking and acting is what has ensured that the education system remains the way it is, a move from the same would create the much-needed change towards equity and responsiveness as all stake holders would get involved in the drive to push for equity and take the necessary steps to achieving the same. Since responsiveness is a product of 'results' at the economic, disciplinary, pedagogical, and cultural levels, such change would bring a shift in the mindset to engage alternative curriculum charges and responsibilities to ensure that responsiveness and equity is achieved.

Barad (2014) argues that diffraction has creative possibilities and as already stated (Ismail 2015; Spaull 2019; Wedekind 2019) there is need for creative ingenuity, a departing from the usual to the formulation of alternatives if changes must be seen at the basic and the higher education levels. Diffractive physicality will map the interferences created or to be created by this wave of creativity and not necessarily the reproduction or reflection because diffractive patterns map where the effect of difference pops up or appears and not where differences appear (Abadía 2021). More often than not we have focused on the differences and how the same has created the most unequal society in the world and its high time we look at where the effect of the difference appears and how to deal with the same rather than the difference itself if we are going to achieve equity. For example, looking at the effects of the differences in resources, teachers, location, social and cultural capital amongst others in schools would be more useful in solving the problem that simply looking at the differences. The education sector already understands the differences, but little is known about the effects of the differences, where it is felt the most and how to deal with the same (Abadía 2021: 108) adds that,

> diffraction disrupts the temporality of our trains of thought, transverses disciplines, and can change conceptual meanings in different contexts. When brought to learning teaching processes, diffractive methodologies are useful to foster conversations between different texts that can belong to different authors and (often opposing) disci-

> plines or schools of thought.

While diffraction fosters the conversation, physicality fosters the action to ensure that the conversation and the action are intricately tied together and not necessarily one or the other; for one without the other would neither produce or contribute to at the very least responsiveness or equity.

Social Vulnerability

The sociality of education and vulnerability involve in such sociality is necessary for the uncoupling and recoupling of certain social strata's which has held the educational system hostage. There are two dimensions of vulnerability ontological vulnerability which is known as precariousness, and social or cultural vulnerability known as precarity. Of course my focus here is precarity and this according to Butler (2009: 28) is a,

> politically induced condition that would deny equal exposure through the radically unequal distribution of wealth and the differential ways of exposing certain populations ... to greater violence.

This means social vulnerability is made and can systematically increase or decrease since it is geopolitically distri-buted. Since it is systematically increased and geopolitically distributed, by reason of the different social and economic conditions that must be understood to address or addressed to understand the precarisation of those on the other side of the spectrum. Abadía (2021) add that vulnerability is also theorised as relationality, affectability, and interdependency, thereby highlighting the sociality of it and the embodied nature precarity, since it is situated in the lived body.

Butler (2009: 33) continues that 'the body is a social phenomenon: it is exposed to others, vulnerable by definition'. This means by its very definition or nature, it is already vulnerable to others since it has to interact and has been interacting with others from birth. Abadía (2021: 112) adds that 'vulnerability is not thus reducible to injurability; rather, it is a response to exteriority, an affectability that precisely animates responsiveness to the world. Our own survivability depends on our relationality'. How we relate with one another or how vulnerable we make ourselves in the drive to reach equity and responsiveness would determine how far we go. The mistrust and

social imperviousness amongst different ethnic and racial groups or social classes has sustained the inequality and lack of responsiveness in education. Both the lecturer and the student must be willing and ready to be vulnerable in the social space and the social process of learning, unlearning, and relearning as well as in the co-creation of knowledge. Gilson (2014: 10) elaborating on this argue that 'vulnerability describes the very structure of subjectivity, its transcendental condition, pointing to an openness and plasticity that makes possible transformation'. Being vulnerable within the educational space would give room for transformation for everyone involved in the teaching and learning process as well as expand the elasticity or plasticity that makes for capacity within the embodied being. Pondering about the critically of such vulnerability in the social space,

Nguyen and Larson (2015) argue that there is bound to be resistance affective and embodied pedagogical engagements in the classroom by both students and lecturers or teachers and learners as the case might be because students have come to see the classroom most often as a place for thinking and or questioning, sitting and listening, challenging and synthesizing but allowing themselves to be vulnerable would shift their expectations which has been shaped by learning spaces and instruction approaches which see learning as involving from the neck up rather than the entire body as the focal point for knowledge construction. This has created students who see as priority learning that affirms their knowledge and self-identification rather than a deconstruction of the same and a rebuilding of a new identity which is located beyond the limits of the boundaries of inequality which can only happen in a socially vulnerable space. Abadía (2021: 113) concludes that,

> This conception of vulnerability, understood as relationality and affectability, challenges teachers to be open to being affected (emotionally, intellectually, physically, all intertwined) by the intra-actions with what surrounds them in the classroom. It challenges students to escape the traditional conception of students as passive beings and to be actively involved in the processes of teaching learning. This is not an easy task: it entails inhabiting positions that are not traditional, and this self-estrangement can cause discomfort. In this sense, embracing vulnerability in pedagogical settings in higher education entails acts of collective courage. Furthermore, it requires to be aware of precarity and differential distribution of

> vulnerability; for this, it is necessary to contextualize the self and knowledges in societal structures and power relations. In this sense, a pedagogy of vulnerability is in debt with Haraway's concept of situated knowledges, which raises awareness that the particular and embodied perspectives of the knower are always present in knowledge despite it being presented as objective (Haraway 1988). Accepting vulnerability, relationality, interdependence, affectability comes with a commitment to being open to others and our surroundings. It invites us to open ourselves to share with others. Teaching and learning, then, are not simply teaching and learning; rather, both processes intra-act in an open-ended way. In this sense, we can talk about co-learning and processes of learning-teaching. Adopting and intra-active attitude towards co-learnings requires practicing critical self-dialogue with our own practices and systems of thought, questioning our assumptions and preconceived ideas, values, and normalized behaviours.

Social vulnerability is needed to engage education parameters, curriculum charges and responsibilities which had hitherto been foregone in the drive for equity and responsiveness. Being vulnerable opens the door to new possibilities as the individual doesn't only changes, or has the potential to change, but the system itself which has sustained the lack of equity is at the mercy of change as the changing individuals, (everyone involved in the educational ecosphere) are bound to change the system.

Rhizomatic Spatiality

Rhizomatic thinking or learning draws from the metaphor of the rhizome to explain the complicated and often messy nature of learning. To Colman (2005: 233),

> the rhizome is any network of things brought into contact with one another, functioning as an assemblage machine for new affects, new concepts, new bodies, new thoughts; the rhizomatic network is a mapping of the forces that move and/ or immobilize bodies.

If the rhizomatic network details the forces that push or pull bodies, its en-

gagement in education would put it in direct contact with the forces that push or pull equity and responsiveness. It is about open-ended spatiality and interconnected as everything about the rhizome is connected. The very nature of equity is interconnectedness and no one factor can explain the lack of equity or the lack of responsiveness as all levels in the education system. It is about a multiplicity of conflagrations charging together towards the deconstruction of equity. With the rhizome, there is no centre or hierarchy, no particular entry or exit point. In education rhizomatics does not simply blend into systems of thought or assimilate them but rather looks attentively at open-ended and incessant conceptual transformations thereby letting multiples forces to flow through it (Abadía 2021). Nguyen and Larson (2015: 341) continue that,

> education occurs only when the whole learner constructs knowledge and meaning from the experiences we facilitate. Learners are simultaneously sensorimotor bodies, reflective minds, and social beings. Embodied pedagogy provides a way through which alternative forms of teaching and learning can be integrated and accepted into the classroom.

To engage the sensorimotor bodies, reflective minds, and social beings all at once within the context of teaching and learning in particular and education as a whole, rhizomatic spatiality is critical as the centre is disbanded and nothing is more important that the other or one school more important than the other. Determining efforts are put in where necessary to create a network which work towards equity and responsiveness by address what has kept the system partial and unresponsive.

Strom and Martin (2015) argue that a classroom considered or made to be a kind of rhizome by reason of the numerous animate and inanimate objects connected in the creation of educational experiences. That is to say that if a classroom is a rhizome a student can't be a passive receiver or a passive participator as most often, they are in the teaching and learning process which would make the teacher an active communicator of knowledge. Strom *et al.* (2018) adds that the rhizome or in the case of teaching and learning the adopted possibility of a similar network creates the possibility of the reassessment of any or all forms of hierarchical activity and or thought and the challenging of the taken for granted edifices of common-

sense thought keeping the system within the current statuesque. Abadía (2021) reports that Deleuze presents 'common' as the pillar upon which the foundations of the dogmatic image of thought which has dominated education stand.

The dogmatic image of thought assumes that every individual being makes sense or comprehend things the same way, leaving no room for differential thinking or diffractive physicality. To Snir (2017: 301) such dogmatism has been a part of philosophy and philosophy of education right from its origin and 'it not only uncritically accepts certain views as true; it does so while assuming it trains students for critical thinking, but in fact only legitimizes a pattern of thinking saturated by these very assumptions'. This is how social strata have been maintained and learners made to think and understand that most pathways are already predetermined and the route to change is outright impossible to ride. Colman (2005: 234) adds that,

> Deleuze's apparatus for describing affective change is the 'rhizome'. Deleuze viewed every operation in the world as the affective exchange of rhizomatically produced intensities that create bodies: systems, economies, machines, and thoughts. Each and everybody is propelled and perpetuated by innumerable levels of the affective forces of desire and its resonating materialisations.

So, affective and embodied pedagogy via rhizomatic spatiality can create new bodies, new systems, economies, disciplines, cultures, social strata by propelling those with the rhizome network to create affective forces that that would transform not only them but those they interact and are vulnerable with in the society. To Abadía (2021: 123) this is why,

> processes of teaching-learning are something amorous and fatal, something that exposes our constitutive vulnerability and interdependency by inviting us to share and care for each other. Explicitly sharing our vulnerabilities unveils our exposability, affectability, relationality. We get done, undone, and re-done by this openness, as our bodies get re-articulated in affective movements with other bodies. We become other with others.

This shift from the self to the other is the pathway to equity and responsive-

ness as we are no longer who we use to being or where we used to be but have now transcended to the new realities we have created in the society through the network.

Conclusion

Equity in the South African education system has proven a hard nut to crack because of the complex nature of the society as well as the rich history of apartheid discrimination which privileged certain groups against others. As already pointed out there are numerous things to be done if the fight for equity is to be won. Doing one without the other would not completely resolve the challenge the nation has been facing for almost three decades after apartheid ended. While there is the need for a change in structures and the allocation of resources amongst others, a pedagogical shift is also needed if learners or students are to feel the impact of such changes in their development.

Affective and embodied pedagogies present unique opportunities through which we can change the nature of teaching and learning, and the way students experience and develop during the teaching and learning process. Diffractive physicality, social vulnerability and rhizomatic spatiality were presented as a combined tool to push for equity and responsiveness from a pedagogical perspective. These three constructs derived from the key tenets or principles of affective and embodied pedagogy would go a long way in promoting equity and responsiveness, as well as create a network which would not only fight the generally accepted normal of inequality but establish the novelty of equity and responsiveness.

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