

Academic Development and its Practitioners

A View from the Inside



Editor
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Abbreviations

APQ	Academic planning and Quality Assurance
BLC	Blended learning coordinator
CHE	Council for Higher Education
CHEC	Cape Higher Education Consortium
CLT	Centre for Learning Technologies
CoP	Community of practice
CTL	Centre for Teaching and Learning
DHET	Department of Higher Education and Training
DLTE	Division for Learning and Teaching Enhancement
DRD	Division for Research Development
ECAs	Early Career Academics
FIGs	Focused Interest Groups
FIRLT	Fund for Innovation and Research in Learning and Teaching
FMF	Fees Must Fall
FYA	First-Year Academy
GAs	Graduate Attributes
HE	Higher Education
HEIs	Higher Education Institutions
HELTASA	Higher Education Learning and Teaching Association of Southern Africa
HEQC	Higher Education Quality Committee
HoD	Head of Department
ICT	Information and Communications Technology
LC	Language Centre
LCT	Legitimation Code Theory
NAA	Newly appointed academics
NRF	National Research Foundation
PASS	Professional and Administrative Support Services

PGDip	Postgraduate Diploma in Higher Education
PL	Professional learning
PREDAC	Professional Educational Development for Academics
REEP	Recommended Engineering Education Practices
SAHEI	South African Higher Education Institution
SAS	Student Academic Support Services
SoEL	Scholarship of Educational Leadership
SOTL	Scholarship of Teaching and Learning
STEM	Science, Technology, Engineering & Mathematics
SU	Stellenbosch University
T&L	Teaching and Learning
UBC	University of British Columbia
UniEd	Division of University Education

GRADUATE ATTRIBUTES

Passe out of the impasse

Gerda Dullaart

We must dare 'to make' the relay; that is to create, to fabulate, in order not to despair. In order to induce a transformation, perhaps. (Haraway, 2016:130)

1 Introduction: Dilemmas and delays

This chapter explores theoretical journeys and passes out of impasses arising from the contradictions that could deadlock a university's integration of graduate attributes (GAs) into its curricula.

Researchers are agreed that graduate attributes are most transformative and enabling when they are infused, interwoven, integrated with disciplinary knowledge systems (Barrie, 2007:234, Hughes & Barrie, 2010:328; Jacobs & Strydom 2014:1, Van Schalkwyk, et al., 2015:88; Spencer, 2010:1). But they are also agreed that the obstacles, barriers and hurdles to its integration abound (Hill, et al., 2016:157; Barrie, 2007, De la Harpe, & David, 2011, Oliver, 2013, Spencer, et al. 2011:11-13). Jacobs and Strydom (2014:1) report for instance that the reach of a specific graduate attributes programme was "seriously hampered by its *supplementary* nature", and a recommendation was made for a shift to a more integrated approach and not "haphazard and episodic attempts" (Bitzer & Costandius, 2018:7). While such an integrated approach appears to be the way ahead for graduate attributes, there is no apparent rush along that way and implementation is patchy (Barrie, 2006:6, Hughes & Barrie, 2010:326; Bitzer & Withering, 2020:17). For instance, if a university director enquires on the integration of graduate attributes (GAs) and critical societal issues in the academic programme, faculty deans might respond that graduate attributes are implicit in some teaching modules. However, the director might find it is not so.

In another instance, two academic development colleagues preparing a T&L workshop may agree to steer clear from the hot potato: "Whose GAs are they anyway? Don't they decontextualize the student?" such hypothetical academic developers may ask. Another instance is that a faculty would decline to report on the integration of GAs across programmes, as it is a very complex task in the context of the faculty's diverse programmes and disciplines. Instead they would focus on one discipline's integration of GAs.

There may be flurries of GAs workshops and reports, and quiet times, when GAs are apparently forgotten.

This study explores theoretical dispositions from which such delays and dilemmas can be understood.

1.1 Problem statement

This chapter explores the contradiction between scholars' finding that GAs should be integrated, and their reflection that they haven't been integrated into the curriculum. It critiques the paradigmatic assumption and apparent consensus of integrating GAs, and proposes that stand-alone and transdisciplinary initiatives to teach and learn GAs are also important learning opportunities.

The chapter proposes a remedy or alternative to the conceptualisation of GAs as either in or outside of a curriculum. The proposition is limited in scope, departing from existing GAs rather than arguing for certain GAs or about GAs' formulation. It is also limited in degree, not radically departing from the GAs discussion but repositioning the assumptions in small degrees. It proposes reconceptualising the accepted relationship between the agents of the system by theoretically interpreting discrepancies in the GAs system (Whetten, 1989:492/3). It deduces recommendations towards achieving graduate attributes.

1.2 Graduate attributes in this context

While this study is not specific to the Stellenbosch University (SU) context, it is informed by it. At SU, the following graduate attributes have been adopted (SU, 2017:1):

- ▶ An enquiring mind,
- ▶ an engaged citizen,
- ▶ a dynamic professional, and
- ▶ a well-rounded individual.

These attributes were further developed by the Co-curriculum office of SU into a competency framework with 18 competencies in four competency domains: Personal skills, people skills, applied knowledge and work-based skills. The academic faculties at SU are the owners of the academic curricula. They have different interpretations of the four graduate attributes, and seldom relate them to competencies. In some academic faculties, the GAs are informed more by the professional industry of their graduates than by the university. The Faculty for Medicine and Health Sciences, for instance, adapted the graduate attributes of the CanMEDS Physician Competency Framework (FMHS, 2013:1), the Engineering Faculty aligns to the Engineering Council of South Africa and the Faculty of Economic and Managerial Sciences to the South-African Institute of Chartered Accountants.

Academic developers work with GAs in these contexts when we assist our faculties with programme development. Intersecting contexts include a current South African urgency for transformation, socially and economically (Bitzer & Withering, 2020:17). A clinician may for

instance request assistance with formulating programme outcomes. An academic developer would brainstorm and synthesise with her to align her vision for the graduates with GAs.

1.3 Methodology

This is a conceptual chapter, reconceptualising GAs. It follows a process-orientated theoretical method, not a variance theory method: The focus is on how GA phenomena emerge and evolve over time, rather than on how variables relate to one another (Cloutier & Langley, 2020:3). So this chapter does not offer predictive regularities or testable propositions, but rather seeks for elements to explain underlying generative mechanisms of contradictions around graduate attribute achievement (Cloutier, et al., 2020:4-6).

Instead of a logico-scientific mode of knowing, a narrative mode is used, trying to conceptualise temporality, human emotion, meaning and mechanisms by which events and activities around GAs play out over time. This method regards the world as becoming, constituted by ongoing processes. As such it would rather not focus on static, separate entities, but on webs of dynamic relations and entanglements and how they act in or on processes and events which could redirect the pathways of achieving GAs over time. While no data is analysed, this method often makes use of narrated examples or hypothetical situations.

Events narrated in this chapter are related to SU policies and documents to offer reference points for explanation. An example is the document on the decision to transcribe students' co-curricular achievement on students' academic transcripts (SU, 2015).

This method of theorising does not result in outcomes, it is more open-ended and explores potentialities. Activity Theory is well suited for such emergent potentialities. Based on the levels of Activity Theory's model for contradictions, this study's method can be described as recursive, dialectical process theorising, because the four levels of contradictions discussed below are not regarded as a cumulative, one-directional movement towards change, but as dialectically emergent and evolving between periods of stability and periods of tensions and contradictions. This methodology is chosen because theorising on dialectical process offers inspiration for scholars who explore phenomena traversed by tensions (Cloutier, et al., 2020:12-13). Such methods often combine models for process contradictions with other theoretical resources to generate new contributions. This chapter combines dialectical theory in post-Marxism with Activity Theory's model for contradictions.

The method is also conjunctive in its recursive process theorising: It deliberately seeks to break down oppositions and boundaries between subjects in the activity system. It makes connections between activity nodes which are usually separated and compartmentalised. It reframes those dualisms as entanglements, for instance between the academic curriculum and the non-academic co-curriculum. One of the conjunctions is to present as foil, and then to transcend, a false dichotomy between skills and knowledge. The chapter uses feminist metaphors of entangled webs and knotworking to reframe such dualisms as dynamic relations (Cloutier, et al., 2020:14). Thus the methodology arrives at three theoretical lenses applied to the contradictory processes of GAs.

1.4 Theoretical frameworks

The three theorists who inspire this chapter work in different domains, and are bound to disagree at times. But they share epistemological lineages in post-Marxism. For them, internal contradiction is not a touchy subject, but the driving force of change and development in activity systems (Engeström, 2001:135). They resist the idealism of humanist individualism which may erode agency in structures.

These theories also resist neo-liberalism, which often prevails in the graduate attribute discourse with its strong focus on employability for enterprise (Hughes & Barrie, 2010:326, Hill, et al., 2016:155). This focus often generates a sense of tension among academics, between employability and knowledge. Steur, et al., for instance, do not interpret gradueness to include employability. They avoid employability, because they see it as being at the expense of students' intellectual development (Steur, et al., 2016:7).

This tension between employability and intellectual development is sometimes regarded as a summary of the GA debate, but it is only one of four foci of how GAs are understood by Bosanquet, Winchester-Seeto and Rowe (2010:106). The second understanding of GAs centres around lifelong learning, the third around preparing for an uncertain future, and the fourth around social justice. Here it serves as an example of GAs contradictions in the false dichotomy it represents.

Is employability as a graduate attribute only about capitalist neo-liberal enterprise, as scholars such as Walker (2008:9) propose? Does a university's attention to employability result in objectifying humans as decontextualised resources with box-ticked competencies? Or can we also imagine and implement GAs as empowerment for the social justice and the public good? (Van Schalkwyk, et al., 2012:87).

Excluding employability from the university's duty is untenable in South Africa. Employment and economic growth are key enablers to reduce poverty and inequality. Our national plan is for graduates with "skills and knowledge to meet the present and future needs of the economy and society" (National Planning Commission – NPC, 2012b:296, 2012a:24, 27). The role of the university in developing South Africa, is firstly to ensure high-level skills for employment, secondly to produce new knowledge, and thirdly to strengthen equity and social justice through social mobility (NPC, 2012b:318). Scholars such as Van Schalkwyk, et al. (2012:88) align to the NDP, reminding that South Africa needs graduates who will be able to participate in growing the national economy.

However, that need is not yet met. The national development plan (NPC, 2012:317) points to the contradiction between graduate unemployment in the face of skills shortages. It holds universities responsible for this contradiction, for producing graduates who do not meet the needs of industry and society. This contradiction is described (by scholars such as Mncayi, 2021:n.p.; De Beer, 2021:n.p.) as a mismatch between the supply and the demand of skills in South Africa. Like the NDP, they also relate the mismatch to the role of higher education institutions. De Beer (2021:n.p.) proposes that tertiary education institutions implement interventions to supply the labour market with more sought-after graduates by focusing more on

soft skills and making time for real-world experience during studies. Similarly, the Department of Higher Education and Training (DHET) indicate the importance of graduate education as one of the strategies to resolve the mismatch. While the DHET does note several complex structural factors to the mismatch, their conclusion includes that the skills in strongest shortage in South Africa are solving complex problems and social skills. They conclude that the education and training system should produce graduates with skills that correspond to employment needs (DHET, 2019:86, 98, 102). From university management side, there is recognition that 21st-century skills, such as those learnt during emergency remote teaching, learning and assessment during the 2020 lockdown, should make students more sought after in a labour market under pressure, without compromising academic excellence (De Villiers, 2021:n.p.).

In this context of market-related discourse on the work of universities, some South African ADs regard employability as imperative for social justice. Others criticise managerial and political support for GAs as neo-liberalist, functionalist, determinist and do not regard skills as the work of universities. They would agree with Steur, et al. that employability and intellectual development are two separate concepts in higher education (2016:7), believing that employability comes at the cost of intellectual development. An immediate antithetical response would be: No. It cannot be that employability causes dumbing down. In even stronger terms, Oates and Reiss (2019:np) regard resistance against skills in curricula as rubbish. They believe that this rubbish results from the opposition between skills and knowledge as a false dichotomy.

A dialectical approach would harness the tension between employability and intellectual development for dialectical synthesis and turn the false dichotomy into possible knowledge through conjunctive reasoning (Engeström, 2001:136; Cloutier, et al., 2020:14). Instead of Steur, et al. (2016) cutting out the tension between the two concepts, by cutting out one of the understandings of the GAs term when they work with it, this chapter seeks for possible knowledge from conjunctive theorising of that tension with the help of dialectics.

An appropriate theoretical route for such a dialectic must be able to accommodate the emergent, **holistic, concretely lived context**, of a university system. Engeström (1987:55-57), Haraway (2016:33) and Žižek (2015) have in common that their work is **not humanist individualist**, but regards subject-forming as systemic, collective, and embedded in real, lived context. In this regard their work can relate to ubuntu, to ecologists, or to complexity theory.

In her Activity Theory primer, Foot extends the collective context beyond individuals and humans to include institutions and the natural world, operating jointly in a persistent system of relations (2014:9). Activity Theorists break with humanism's split between the individual and the societal structure and instead take a cultural-historical approach (Engeström, 2001:134). They focus on the complex interrelations between individual and community. Engeström's break with humanist individualism is specifically about learning and teaching. He proposes strong alternatives against approaching learning as if the human mind is isolated from cultural context (2015:xiii). This approach shares Haraway's (2016:33) conviction that we are not isolated, but collectives (2018:105). For graduate attributes, this implies a radically inclusive range of voices and partnerships (as Bridgstock, 2009:40; De la Harpe & David, 2011:14; Hill, et al., 2016:158 propose).

Scholars of graduate attributes express a need to transform university learning (Barrie, 2007:440; Hughes & Barrie, 2010:329). Theoretical support for university **transformation** can be found in the change management and interventionist tradition of Activity Theory (Engeström, 2015:xiii), when the good ideas of graduate attributes are patchily implemented (Barrie, 2006:6). In our context, transformation refers to the transformation of university teaching and learning for social justice as demanded by South African students and scholars such as Luckett (2019:37) and the students she quotes; and Hlatwayo and Shawa (2019:27).

1.5 Activity theory

Why Activity Theory when we try to resolve impasses with graduate attributes' integration at universities? Its most important contribution here is that it embraces contradictions as inevitable in the functioning of any system (Foot, 2014:2,16). This section introduces the triangular model for Activity Theory with Figure 7.1, in preparation for a dialectical turn to attempt a future vision for the teaching and learning of graduate attributes.

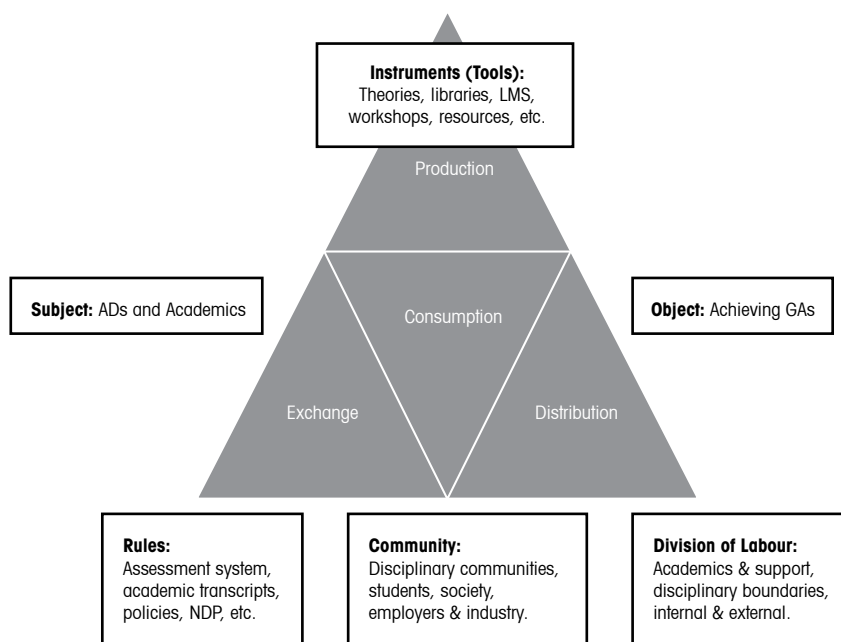


Figure 7.1 Activity system of graduate attributes

The core components of graduate attributes and their implementation can be represented in an activity system as in Figure 7.1. The *subject* (or actors) can be regarded as members of the university system who contribute to students' learning, especially ADs and academics involved with programme development. The subjects strive for a desired outcome, an *object*, such as achieving graduate attributes (Foot, 2014:30). Objects are not just goals or products, but also durable concerns and motives, even as changes can be expected. Objects generate the focus of attention, for instance, whether a university regards graduate attributes as meaningful and worthy of effort (Engeström, 2015:xvi).

The *community* in an activity system share with the subject an involvement with the same object. The relationship between community and subject are mediated by the rules that regulate the system, and by the division of labour. For graduate attributes, the communities include the teaching unit, disciplinary community, the university, the student body, administrative units of the university, future employers, clients and patients of graduates, society and its justice and equity, the nation and its economic growth (Van Schalkwyk, 2012:87, Hill, et al., 2016:158, Bitzer & Withering, 2020:15, Jones, 2013:55,96). *Rules* include curriculum and assessment systems, financial and human resource systems, governmental policies and plans (e.g. DHET 2019 and NCP 2012).

Division of labour includes both the relatively horizontal division of tasks, and the vertical division of power, positions, access to resources, and rewards (Foot, 2014:8). Here it includes disciplinary divides, divisions and collaborations between support and academic units, between management and academics, between staff and students, and between the university and society and industry.

The *tools* in an activity system are employed by the subject to pursue the desired outcome. For graduate attributes, tools include theories, research, learning platforms, libraries, resources, funding, projects, workshops and other enabling instruments employed in the university system to achieve GAs. Tools themselves are also inscribed with contradictions, as they enable certain forms of action and constrain others, and bear marks of their histories and contexts (Foot, 2014:14,30). The next section explores contradictions around tools.

2 Dialectical contradictions

This section introduces dialectical ways out of contradictions which have been deadlocking the integration of graduate attributes.

2.1 Contradictions are opportunities

Contradictions in the GA system can be frustrating. But with Activity Theory, we can turn them into generative forces to transform the university. Contradictions show where a system has opportunities for creative innovations. They generate the unexpected. They beg for new ways to enact and structure the activity, allowing us to learn what is not yet there (Foot, 2014:16; Sannino & Engeström, 2017:81).

Contradictions are part of everything we do together. They are a sign of richness and mobility in the activity system, and not of weakness. They indicate where an activity can develop rather than keep working in a fixed and static way, like growth buds at the edges of the activity system (Foot, 2014:17).

The history and future of a contradiction are both important when trying to resolve it dialectically. For GAs, the role of apartheid and decolonisation as well as climate change and the next industrial revolution inform contradictions between, say, employability and knowledge. If we consider the historical evolution of inner contradictions, they offer the main sources of change and expansive development in an activity system (Engeström, 2015:xi). The area between an

activity system's present and future is a collective zone of proximal development (ZPD), where a new way of learning for the system itself emerges (Foot, 2014:18). Engeström (2015:xi) calls it expansive learning and proposes a specific dialectical method of ascending from the abstract to the concrete. It appears to be an upside-down dialectic, focusing on what is unknown but possible in the future and from there relating to the concrete context and working through the levels of concrete conflict experience. Such levels of working through the various levels of contradictions in a system, one after another, form recursive cycles of expansive learning (Foot, 2014:17, Sannino & Engeström, 2017:82, 83). In an expansive cycle, the object of the activity is radically widened, opening up a new horizon of possibilities (Sannino & Engeström, 2017:84, 106). This radical widening of the object creates the space for dialogic solutions. For GAs that would mean that we open up the object. It does not only need to be the integration of GAs in the curriculum, but could radically open up the horizons for unintegrated GA learning opportunities while relating to what is concretely possible and historically informed in our context, on our campus and in our community's socioeconomic formation and transformation.

The specific contradictions of each system and radical openings which they make possible, show up when given space for discussion, with contextual sensitivity. Contradictions are the start and not the end.

2.2 Dialectical trouble and traverse

When we apply a dialectical turn to the contradictory corners of the activity system, we don't have the option of choosing the more appealing alternative of the contradiction. We have to take both. University curricula have to achieve both intellectual development and employability, for instance. Social justice is as much a part of employability as of intellectual development. The contradiction cannot be swept away by moral decisions (Engeström 2015:96). This is not to say that moral decisions are not needed, but that both/and-decisions are needed, both pragmatic and moral. Haraway formulates it as response-ability (2017:34):

... this is what I call cultivating response-ability; that is also collective knowing and doing, an ecology of practices. Whether we asked for it or not, the pattern is in our hands. The answer to the trust of the held-out hand: Think we must.

After Althusser, Žižek also warns to not expect closure for such conflicts. No-one will win the battle between employability and intellectual development. Conflict about it won't come closer to true knowledge, definitive closure or perfect non-contradiction. That impossible ideal is a regulative idea (2005:51-3). Instead of fusion, union or closure, dialectical synthesis requires "a specific twist", a traverse, travelling beyond and through the subject matter. A passe out of the impasse. Haraway uses Hannah Arendt's term visiting (2016:177). Thinking is "training one's mind to going visiting [...] distancing of some things and bridging of others is part of the dialogue of understanding". She also uses the metaphors of relaying and returning (2016:12) in a way that resonates with the patient, hopeful, curious, creative, repetitive movement of traverse: "We must 'dare 'to make' the relay; that is to create, to fabulate, in order not to despair. In order to induce a transformation, perhaps" (2016:130).

Traversing uses repetition, relay and delay to make meaning. Instead of moving to interpret, it delays interpretation and revisits the conflict and contradiction (Žižek, 2006:43). Interpretation arrives by repetition, delay and overtakings, engaging with context and their contingencies and “all the massive weight and inertia of the real which troubles and spoils the dialectical game”:

The dialectical process always takes the paradoxical form of overtaking/delay, the form of the reversal of ‘not yet’ into an ‘always already’ [...] initially the thesis arrives by definition too soon to attain its proper identity, and it can only realize ‘itself’, become ‘itself’, after the fact, retroactively, by means of its repetition in the synthesis. (Žižek, 2006:44–45)

For GAs, it implies that we will only see them realised retroactively after repeating, overtaking and delaying our attempts at them, against the inertia and in the conflicts of our real contexts. Haraway shares with Žižek and current trouble theorists an embrace of trouble (2016:1):

Mixed-up times are overflowing with both pain and joy – with vastly unjust patterns of pain and joy, with unnecessary killing of ongoingness but also with necessary resurgence. [...] Our task is to make trouble, to stir up potent response to devastating events, as well as to settle troubled waters and rebuild quiet places.

Contradictions, trouble and failure stimulate the dialectical movement. For graduate attributes, it means that we should not expect an ideal closure where GAs are integrated outcomes and competencies in all disciplines, but to ensure space, both dialogical space and openness for emergence in our expectations. Graduate attributes can be both integrated and not, there can be conflicting ways of learning them. The graduate attribute synthesis process will take long and will need patience. There will be no announcement that it has arrived. And we will have to do it all over again.

3 Four levels of contradictions for change

This section takes the space recommended by the above dialectics, to work through contradictions around GAs in successive levels of the activity system.

The impetus to change a system as modelled in Figure 7.1, comes from four levels of contradictions: Primary (within each constituent component of the activity); secondary (between the constituent components of the activity); tertiary (between the activity itself and a culturally more advanced form of the activity); and quaternary (between the central activity and its neighbouring activities) (Engeström, 2015:71).

Contradictions are inevitable in an activity system, and generate its self-movement as the members of the system proceed from the contradiction on one level to its solution, and on to the contradictions on a next level in a process of cyclical development, often in the form of invisible breakthroughs (Engeström, 2015:72). In the following sections, we work through the primary, secondary, tertiary and quaternary contradictions of achieving GAs.

3.1 Primary contradictions

Primary contradictions arise in all components of an activity system. They arise from the foundational contradiction between any commodity's exchange value and use value (Sannino & Engeström, 2017:83). Employability is an example of a degree's exchange value, and

intellectual skills or knowledge an example of its use value. Graduate attributes are inherently valuable as capabilities and also have exchange value within socioeconomic relations on the labour market. Hill, et al. (2016:156) for instance report an “issue” around balancing contemplative academic orientations with business-minded instrumental orientations to graduate attributes. As object in the activity system, graduate attributes are inherently contradictory in terms of their ownership, with tension arising from whether they are externally enforced by management, or intrinsically belong to the academic project.

Other contradictions in graduate attributes can arise from their status of being both given and emergent (Jones, 2013:594) and from their formulation. The SU graduate attribute of a well-rounded individual (SU, 2017:2), for instance, may arguably contain the contradiction that someone who is well-rounded in the context of ubuntu is no Cartesian individual, but rounded in her community interdependence. This well-rounded being is described as “Exposed to cultural, intellectual and sporting life; Takes responsibility for own development; Takes informed and considered decisions” (SU, 2017:2). These descriptors support an argument that the attributes are not possible for an individual alone, but are contextually determined and interdependent. Haraway (2016:30) and other scholars believe that contexts go beyond the individual, indeed beyond the human to include the full complexity of our communities and our ecologies: “human exceptionalism and bounded individualism, those old saws of Western philosophy and political economics, [have] become unthinkable in the best sciences, whether natural or social”. A more appropriate formulation would not emphasise individualism but could for instance rather be “a well-rounded member of communities”. For more radical post-humanists it could be “a well-rounded member of communities of compost” (Haraway, 2016:4), because:

Staying with the trouble requires making oddkin; that is, we require each other in unexpected collaborations and combinations, in hot compost piles. We become – with each other or not at all.

This is but one example of the contradictions within graduate attributes.

Such a lack of consensus about the graduate attributes is often mentioned as an obstacle in their implementation (Hill, et al., 2016:157; Jones, 2013, Steur, et al., 2016:6; Bitzer & Withering, 2020:14). Academic developers and academics do not agree on the formulation of GAs. These fundamental contradictions in graduate attributes can be double-binding tensions. They can lead to “freezing” when they are regarded as moot, pending, not yet ready for adoption by academics. Or when they are regarded as not relevant to academics, due to their own inherent tension (Foot, 2014:21,22). Freezing opposes organisational change when members of a system become psychologically committed for or against a decision (Holt & Morris, 1993:105).

But with dialectics, such contradictions and tensions need not be failure, deficit, weaknesses or problems to be fixed before we can teach and learn graduate attributes. The perfect contradiction-free graduate attributes do not need to be formulated. The difficulty of finding consensus is not an obstacle to be overcome or transcended with the help of a technical solution before we can achieve the outcome of learning graduate attributes. Instead it would be more productive to work with GAs as they are, even while critiquing them, even as faculties differ and disagree on them, and allowing the tension around them to be aggravated to a next level of contradiction.

Rather than ending points, contradictions are starting places. [...] In other words, throwing more money at a contradiction, establishing a new division of labor, or creating new tools will not make them go away. In actuality, such interventions may very well result in the aggravation of existing contradictions or the emergence of new ones. (Foot, 2014:17)

The contradictions around what graduate attributes should be, need not be resolved by simple agreement or consensus. That there is disagreement about them is an opportunity for engagement which can bring dialectical impetus and expansion.

3.2 Secondary contradiction

Secondary contradictions are conflicts between the corners of the triangle in Figure 7.1, the components of the activity system (Foot, 2014:22, Holt & Morris, 1993:99; Engeström, 2015:70).

A contradiction could be between tools and rules. Implementing graduate attributes may for instance be in a conflict or double bind between the tools and rules nodes of the activity triangle in Figure 7.1. Tools to implement the rules can be hard and soft material and instruments, such as libraries, learning platforms, data and connectivity, workshops, theories, projects and project funding, reports. From the literature there appears to have been abundant provision of tools, workshops and coffee for embedding graduate attributes in accordance with the rules – no apparent contradiction there.

But the tools to unpack graduate attributes in disciplinary knowledge systems are to be used by academics, the lecturers of disciplines, and academic developers. A guideline document unpacking the GAs sits dormant on its webpage until the subjects apply them to programme designs.

When tools are abundant, easy to use and aligned with rules, they can become problematic, especially when perceived as an administrative demand (Foot, 2014:16). Among many academics, there could be a perception that the tools are administrative rules. The lack of contradiction between tools and rules, their alignment, is then reified. And it can be even more clashing when the tools are designed to fit the rule, for instance, when workshops are designed to implement policy, or when GA research articles are published by those with power over the subject. If academics perceive management to be the designers of GA tools such as workshops or published articles, they may experience alienation from the tool and see it as a rule. They may perceive it as being in service of managerial statistical success reports, financial quotas or neo-liberalist government or industry, rather than as a useful tool.

While the tools and rules for GAs are not contradictory for most university systems, they may generate contradictory perception and experience among the academic and academic development community. Activity theorists expect contradictions to arise around tools and rules. This is because inner contradictions arise more in the community node of the system than in other nodes. All corners of the activity system triangle (Figure 7.1) experience inner contradictions. There are always mutual exclusions and at the same time mutual dependencies in a system, like Marxist contradictions between use value and exchange value. However, contradictions penetrate the corners of the subject and the community more than other corners,

because its members are also a special kind of commodity: Labour force. Members of the university community are both subjects and a special kind of commodity, workers (Engeström, 2015:66, 68).

The labour of integrating graduate attributes surfaces often in the literature as a constraint to doing so. Objection against integration is that it is a tall order. The to-do list is long: Mapping and tracking of GAs; translation, review & revision; programme renewal; continuous programme measurement of GAs achieved; buy-in and change management. It needs academic and other time for project teams, T&L support staff, and a project manager (Bath, 2004:319, Oliver, 2009:452-453, Nicol, 2010:7). Yet scholars also indicate that many tools and resources were provided (Jacobs, et al., 2014, Van Schalkwyk, et al., 2012, De la Harpe, et al., 2011, Bridgstock, 2009). The rules and the tools provided to integrate GAs into disciplinary learning were thus not taken up by all members of the academic community.

Researchers report that academics resisted against embedding graduate attributes into the disciplinary curricula precisely because they do not form part of the disciplinary body of knowledge and are not valued as a legitimate form of knowledge, but as “soft skills” (Lucena, et al., 2008:440). Even when academics value “soft skills”, they find it difficult to assess them, and tension can be detected between various members of the academic community about it, for instance, between bureaucracy and academics: “We need to circumvent the tyranny of an assessment bureaucracy that demands a numerical mark to enter against a credit-bearing course code on the university’s computer system” (Rowe, 2018). Academics also often feel that there is no time to embed graduate attributes in their programmes, that the curriculum is overloaded, and that it is not fair to expect of higher education to equip students with workplace skills, for instance, in this European study:

...we still face several difficulties. [...] Can we expect from students in higher education that they acquire the necessary competences to act as a performant civilian after graduation when it takes extensive time to acquire complex competences in a complex domain [...]? Is it fair to expect from higher education that students acquire scientific competences, professional competences and generic competences at an expert level? (Gijbels, 2011:382)

The contradictory demand on academic time (Nicol, 2010:7) is a particular impasse between the division of labour and the community of graduate attribute implementation which arise from another object in the university system: Research. Jones (2013:596) similarly reports contradictions around time allocated for research, administration and graduate attribute implementation. Her application of activity theory to graduate attribute implementation finds this an important contradiction: “It is significant in considering the construction of graduate attributes as it takes into account notions of power...” (Jones, 2013:596). Similarly, Van Schalkwyk, et al. (2012:96) describe this relation between graduate attribute integration and research as a dilemma, leaving the community with a task still to be taken up: “As a research-led institution, SU needs to define what this particular identity implies for the graduate attributes of its students.” They propose “involving students in research-like activities” to resolve the dilemma as academics can fulfil research objectives while students acquire enquiring minds. This proposal is indeed a dialectical synthesis to resolve the dilemma, involving a paradigm shift in the way an institution thinks about graduate attributes, asking that universities “revisit their roles”, and that lecturers “embrace and embed [graduate attributes] for the public good within

their everyday activities of teaching, research and community interaction" (2012:96). While they make dialectic proposals with transformative, future-oriented proposals, implementing those proposals depends on agency in the structure. Thus a dialectic solution may return to a deadlock position where the various community members contradict. Finding a way out is possible when these primary and secondary contradictions are aggravated to a third and fourth level. Primary contradictions provoke the participants of an activity system to take questioning actions. Secondary contradictions provoke analysing actions. When they are aggravated, they lead to other types of contradictions and expansive learning (Foot, 2014:26). For GAs it means that conflicts among academics and academic developers should not be avoided but should be confronted with actions of questioning and analysing.

To summarise, the secondary contradictions around GA implementation involve the nodes of tools and rules, community and labour division.

3.3 Tertiary contradictions

In tertiary contradictions the subject of the activity meets with a culturally more advanced form of the activity, stimulating their examination and evaluation of the activity system (Foot, 2014:27).

Fruitful tertiary contradictions occur when clashes about graduate attributes are discussed across faculty boundaries. Among the hurdles to integrating graduate attributes are a lack of confidence and too much idealism (De la Harpe, et al., 2011:6,12). It helps when one faculty Dean hears from another about the trouble she and her team braved on their way to their stage of GAs implementation. Or when a website for diverse stakeholders is used to share information about graduate attributes (James, 2004). Such cross-boundary communications on GAs are traversal networks and make space for transformation.

Another tertiary contradiction is that research supports disciplinary integration of GAs into curricula, but the unintegrated informal extra-curriculum and co-curriculum accommodate higher implementation rates of graduate attributes. With the SU Regulation on Co-curricular Achievement (SU, 2015), for instance, university management, the SRC and the student affairs community successfully integrated graduate attributes into the co-curriculum programme with credits recognised on the academic transcript. In a sub-system away from the disciplinary academic project, the SRC initiated this regulation from outside the formal curriculum (SU, 2015:1).

This tertiary contradiction appeared when representatives of one culture (e.g. one faculty, or SRC and student affairs) "introduce[d] the object and motive of a culturally more advanced form of the central activity into the dominant form of the central activity" (Engeström, 2015:95). The tools had been taken up. Although the regulation was not intended for embedding and expanding GAs, it had an advancing impact on their implementation in the system. "The introduction of the co-curriculum at Stellenbosch University has the potential to contribute significantly to developing graduate attributes" (SU, 2017:1). As it was a rule introduced from outside the academic project, but inside the university system, it could set in motion the dialectic dynamic for the contradictions around GAs implementation to mature.

The historical trajectory of this regulation emerging from the SRC reveals how history inscribes tools with rules in Activity Theory: "Tools are also a record of the history of the activity" (Foot, 2014:14). The way in which GA tools are in alignment with rules outside the academic system "could reveal something about the relationship between actors and their object-concept at the point in time in which the tool was appropriated or created" (Foot, 2014:14). For instance, it could reveal the importance of academic freedom to academics and academic developers. It could also reveal their concept of employability and how it differs from those GA competencies developed in the co-curriculum office.

To conclude, tertiary contradictions arose in the graduate attribute system when subjects were exposed to other subjects who had achieved more GAs. That set in motion a different dynamic and power relations became central (Foot, 2014:23). It can trigger renewed energy and dedication towards the object of GAs. It can trigger a new developmental phase for the activity system, and it can trigger a quaternary contradiction. It can help the activity system to be redefined and reconfigured.

3.4 Quaternary contradictions

In quaternary contradictions members of a system consider the "neighbour activities" linked to their central activity, often when they are already busy consolidating the practice (Engeström, 2015:70). This opens a new round of questioning (Foot, 2014:27). An example of such tension from neighbouring activities on graduate attributes are reported as "competing demands of mainstream academic work and co-curriculum" (Jacobs & Strydom, 2014:68-69).

A quaternary contradiction can emerge when a faculty invites collaboration on the embedding of GAs from those knowledge systems and administrative systems outside of their labour division, for instance, from the co-curriculum system into the curriculum (Withering, 2019:72). Or when a faculty tracks and formally credits the extra-curricular learning efforts of its staff and students beyond the formal curriculum and its divided labour and disciplinary boundaries. It requires negotiation and tying administrative knots. Engeström uses the metaphor of "knotworking" as an emerging mode of such collaboration (2015:xxv). This negotiation is done with neighbour activities where the object and outcomes are embedded. Such engagement requires and generates initiative and commitment to future-oriented visions. Orientation to the abstract future generates novel concepts. It leads to concrete practices which make collaborative development possible beyond any authoritative constraints in a system (Sannino & Engeström, 2017:81). Similarly, Haraway proposes knots and string figures as metaphors for "living and dying in other knots and patterns that do not presume isolated, much less binary, unities and polarities that then need to be brought into connection. Various and dangerously configured relationality is just what is" (Haraway, 2016:175).

Such relationality with neighbour activities impacts the whole activity system (Engeström, 2015:69). The resulting quaternary contradictions have four impacts. They firstly reach the object and produce the outcome of integrating graduate attributes. Secondly, they produce instruments to do so. Neighbouring faculties and PASS divisions would, for instance, share tools for assessing soft skills; or an interdisciplinary approach to learning critical thinking. Thirdly, such neighbour activities include subject-producing activities, developing people's skills and subject-

forming. The co-curriculum office, for instance, would run capacitation programmes to apply for and achieve formal recognition of graduate attribute achievement. When faculties and non-academic neighbours collaborate, these subject-producing activities support the professional development of academics. Fourthly, the neighbour activities include rule-producing activities when they involve administration and legislation (Engeström, 2015:70), such as calculating notional hours for achieving graduate attributes, or providing opportunities for GA development (Withering, 2019:73). The dialectic synthesis arising from quaternary contradiction causes hybrid new forms of the activity, transforming the system, as the central and neighbouring activities “hybridize each other through their exchanges” (Engeström, 2015:70). An example is when course material for GAs, such as critical thinking, are developed for one part of the system and adjusted to be applied in another, or when interdisciplinary learning happens as students from various faculties join in collaboratively learning critical thinking. Similarly Žižek’s traverse allows synthesis across boundaries and ways of knowing (2006:39-55). It takes time, more time than expected, and it takes drive and openness to new encounters. Implementing graduate attributes should be given time, more time, according to Hill, et al. (2016:157).

A ripple effect is triggered in such quaternary contradictions when an object is transformed or expanded and it results in new practices (Foot, 2014:24). The goal of GAs is transformed from integrating GAs to various other ways of implementing them when one activity system (such as the student affairs system) creates disturbances in its relations with the other activity systems with which it interfaces (such as the academic project).

This new form of practice is the system’s own expansive learning. Actions which manifest the inner contradictions of the old way of doing the activity, give rise to social transformation and to new activity structures (Engeström, 2015:98). The multiple voices in the system must be taken into account for such expansive learning and transformation to happen. For GAs, those neighbouring voices outside of the academic system, contribute. A new choir and new song emerge:

An activity system is by definition a multi-voiced formation. An expansive cycle is a re-orchestration of those voices, of the different viewpoints and approaches of the various participants. [...] The re-orchestration of the multiple voices is dramatically facilitated when the different voices are seen against their historical background, as layers in a pool of complementary competencies within the activity system. (Engeström, 2015:xxiv)

When graduate attributes are negotiated across university boundaries, quaternary contradictions offer possibility knowledge to the system.

3.5 Possibility knowledge & future vision

Emphasising transformative agency, Sannino & Engeström (2017:81) regard volitional action and transformative agency as central to interventions to bring about change management in an organisation. They strive for knowledge with impact on society and system, which can be turned into transformative action. Actionable knowledge is *possibility knowledge* about possible new forms and patterns of objects in the system. Possibility knowledge opens and charts the zone of proximal development of the organisation. It is future-oriented perspectives, visions, and designs. It is not knowledge which stabilises and “fixates things into static definitions and categories, which often turn into stereotypes and prejudices” (Sannino & Engeström, 2017:81).

Such future visions are proposed in the following section as possibilities for achieving graduate attributes in the university system.

4 Passe out of the GAs impasse

This section concludes that passes out of the impasses of implementing graduate attributes, require a radical dialectic to shift the foundations of the participants into expansive and transformative learning. It then ascends from the abstract (with Sannino & Engeström, 2017:81) to make concrete proposals of enacting such passes in the graduate attribute activity system.

4.1 Dialectic shifts for GAs

4.1.1 *Space*

Several researchers conclude that dialogic spaces are needed for facilitating multi-voiced dialogue between opposing components in and next to the graduate attributes system. For Van Schalkwyk, et al. (2012:97) space is needed for transformative learning in current programme development activities.

Such dialogic space is physical in terms of time and resources. It is also symbolic space, in an openness for diversity and a need for interpretive space for exploring and theorising the multiple dimensions of graduate attributes (Jones, 2013:602). Such symbolic space is for instance created when students and their teachers critically engage on graduate attribute development in their programmes and disciplines (Van Schalkwyk, et al., 2012:97, Withering, 2019, Bitzer & Withering, 2020:13,24). The space is also conceptual, for instance creating space for engagement around graduate attributes, expansively shifting research about graduate attributes to explore theories and processes for achieving them, rather than doing quantitative research on GAs (De la Harpe & David, 2011:15).

In theoretical post-Marxist dialectics, such dialogic space is an ethical imperative, like social justice in South Africa. In such a space of freedom...

...a subject is forced to take responsibility for the choice of his or her own character structure, the very form of this space demands that the choice produced will be an ethical one. (Orpana, 2016:29)

Once a subject is truly confronted with the space of terrifying freedom he and she "cannot but choose in a way that extends the same space of freedom to his or her Other(s)" (Orpana, 2016:29).

Such dialectically open space must be created physically, with coffee and all. Or in pandemic lockdown, with data access and all.

4.1.2 *Multiple voices in symbiotic relationships*

A possible knowledge emerges that co-curricula, extra-curricula and hidden curricula can be in symbiosis with formal curricula, whether integrated or even in "stand-alones". Jacobs and Strydom (2014:71) refer to unintegrated attempts at GAs learning as stand-alone. Although

they recommend integration of GAs into the formal curriculum, they also foresee and appeal for “widespread dialogue across the university community [...] in an open process which draws in students, academics and administrators across the formal and co-curriculum” (2014:72). They want the entire university community to be invited into the dialogic space, across its neighbouring systems. Such expansion of the dialogic community is supported by the expanded space required for dialectic synthesis (above). And it supports the decolonial project’s demand for universities to be open to all forms of knowledge (Luckett, 2019:45). For graduate attributes, this means that integration is not just about mapping generic competencies onto existing curricula; but also about symbiotic partnerships where graduate attributes can be achieved in various knots among university community members. Examples of such knotworking are found between faculties, careers services and employers to address “the issue of career management, competence [...] and self-management skills” (Bridgstock, 2009:40). Hill, et al. (2016:158) agree that there is certainly a need for stronger relationships between the academic staff and the professional, placement and support staff around graduate attributes. Another community knot, between faculty and professional body, require incorporating rather than competing, on professional accreditation competencies (Oliver, et al., 2013:453). This kind of knot is seen when professional bodies, academics and academic developers collaborate on initiatives around graduate attributes.

Other GA scholars agree on the need for stronger relationships in the broader community (Bitzer & Withering, 2020:28). De la Harpe and David (2011:14) suggest a shift in how universities could conceptualise and advance the graduate attribute agenda, having found “the limitations of relying solely on the formal curriculum.” Although they recognise the pivotal role of academics and the formal curriculum in achieving GAs, they suggest a more strategic move toward a whole-of-university and more student-centered approach. Such an approach would encourage and measure (to academically transcribe) how GAs are developed in various extra-curricular and external activities. Hill, et al. (2016:156, 158, 160) and Withering (2019:70) also suggest a move toward whole-of-university and more student-centered approaches and highlight the role of co-curricular and extra-curricular activities to develop a bigger role for students’ self-directed learning of graduate attributes. An example is when students initiate projects which achieve GAs, such as extra-curricular programmes for Engineers Without Borders or for food security in the local community.

Such openness and partnerships allow holistic engagement where quaternary contradictions can emerge (Engeström, 2015:xviii). Haraway sees such multi-voiced communities as symbiotic relationships. They are not linear or centrally controlled, but involve developmental and entangled movements, like the knotworking metaphor of Activity Theory. Similar to Haraway’s (2016:30) metaphors of tangles, tentacles and knots for symbiotic and sympoietic systems, Engeström (2015:xxvii) also uses metaphors of expansive relations, e.g. “starlike” or “lines of wayfaring” or as a “tangled web” characterised by uncertainty, disorder and indeterminacy (Engeström, 2015:92). This multidirectional tacking movement, traversing back and forth, also resonates with Haraway’s use of the term “visiting” (2016:177) and with Žižek’s term “traversing”, metaphors of repetitive travelling through a space or subject matter:

Movement from an abstract germ cell toward the concrete is depicted as multidirectional, starlike expansion by means of trails in space. (Engeström, 2015:xxvii)

Such synthesis requires more and less than easy fusion, but a travelling or movement beyond and through the subject matter. A *passe* out of the *impasse*, for Žižek (2006:35), or visiting and relaying for Haraway (2016:177), it requires repetitive and patient dialectic movement to respond to contradictions and dilemmas. For GAs, it requires that academic developers should keep the GAs project going.

In practice, it means that all extra efforts where graduate attributes are taught and learnt at university, need to be supported and brought on board in the form of credits which are academically transcribed, whether on a separate transcript (Oliver, et al., 2013:455), or on an integrated academic transcript. This implies there is much work to do towards capacitation and administration to track and recognise the formal and informal ways of acquiring graduate attributes. While this vision allows an all-in approach, it does not mean anything goes, as the process must be as stringent and diligent as any other of the university's duties.

Another practical solution is Nicol's (2010:7) suggestion to map graduate attributes to activities, and not to outcomes. This resonates strongly with Activity Theory's tenets that the activity defines the system, more than vice versa. An example dates from the Covid-19 lockdown period, when face-to-face assessment had to be replaced by emergency remote teaching and learning, open-book assessment and technological literacy. Students' activity to access online resources achieved GAs of critical information literacy or technology use, while they were also attending to the academic outcomes.

Multi-voiced symbiosis around graduate attributes will require in practice that we don't focus too much on detail during some stages of our work, but on broader terms: "The emphasis has to be more brush-stroke than forensic, assuring every aspect of each would be impossible" (Oliver, 2013:453).

4.1.3 Research-led learning

As Van Schalkwyk, et al. (2012:96) and Hill, et al. (2016:158) propose, research-led teaching can resolve some of the competing demands on academic time. This would allow for quaternary contradictions between various knowledge systems. For Van Schalkwyk, et al. (2012:96) this resolution of the dilemma could be when we design learning opportunities in which students must approach their own learning just like the academic approaches research. Similarly, Hill, et al. (2016:158,160) also foresee that research-based learning would build students' agency, developing habits of critical inquiry and self-authorship which encourage students to develop not just research literacies, but also personal literacies.

4.1.4 No consensus

While many researchers found it challenging to investigate GAs in the lack of consensus about their formulation (Steur, et al., 2016:6,7, Bitzer & Withering, 2020:28), consensus is not needed in dialectic synthesis. Žižek's synthesis avoids this restfulness, and instead allows the range of possibilities, traversing among them to learn expansively (Engeström, 2015:70).

Instead of agreeing about the formulation of graduate attributes, those who work with it can use working conceptions rather than ascribe to an idealised formulation (De la Harpe & David, 2011:6). Steur, et al. (2016:5,7) do acknowledge ambiguity, complexity and diversity of terms and field, but still they need to adopt a term for graduate attributes and stick to it. This is the restfulness that a dialectical contradiction resists. Instead, it could be uncomfortable and cumbersome, but productive, to allow various GA formulations in one university, and to leave some GAs open for academic developers and academics to implement variably to their different contexts.

4.1.5 Traversing the boundary

Clashes arise from the tension between disciplinary boundaries and the introduction of graduate attributes. These clashes are already in the university system where scholars collaborate interdisciplinary, or debate paradigms. Haraway (2016:73) propose transknowledges as “a multiverse of articulating disciplines, interdisciplines, and multidisciplinarity”. She believes that transdisciplinary work can (inter alia) be evaluated in terms of “how well it learns and models how to be affected or moved, how well it opens up unexpected elements of one’s own embodiments in lively and re-sensitizing worlds” (2016:73). Researchers report tension about disciplinary boundaries, and the place for graduate attributes in disciplinary knowledge systems. Oliver (2013:453) sees staff resistance to GAs as coming from a sense of threat (inter alia), with faculty feeling that disciplinary boundaries are threatened by graduate attributes.

A dialectic approach would visit and traverse this boundary and would both question and affirm it. Disciplinary boundaries’ exteriority informs the disciplinary profile. Bath, et al. (2004:322) note an increase in discipline-specific outcomes achievement when generic outcomes are taught and learnt, an apparent side-effect. They ascribe it to a symbiotic relationship when disciplinary knowledge and graduate attributes work hand-in-hand and reciprocally (2004:326). This side effect arises from the quaternary contradiction when the neighbouring systems of disciplinary and other knowledges touch boundaries. The expansive learning affects both the disciplinary learning and graduate attribute learning.

This kind of dialectical synthesis does not fuse the disciplinary knowledge with other systems, but allows it to dynamically coincide. Žižek (2006:37) explores this dialectic when he continues the post-Marxist inversion of Hegelian synthesis:

What presents initially as an obstacle becomes in the dialectical turn the proof that we have made contact with the truth. We are thus thrust into the thing by that which appears to obscure it, that which suggests that the thing itself is hidden...

In practice, this dialectical turn could be implemented in a graduate attribute discussion when participants make disciplinary knowledge and skills the first item on their list of graduate attributes (Oliver, 2013:453). In the Faculty for Medicine and Health Sciences, for instance, the graduates’ clinical professional skill is the central connecting point and the first among other GAs (FMHS, 2013:2).

4.2 Summary

Graduate attributes are relevant for citizenship and employment, and we will not surrender those to neo-liberalists. For that reason, this chapter explored theoretical routes out of impasses that sometimes hinder the implementation of graduate attributes into university curricula. Theory indicated that possible knowledge would emerge from contradictions if we foster multi-voiced symbioses and unsure traversals between neighbouring parts of the university system.

The recommendations in the previous section can be summarised as symbiotic collaboration between faculties and non-academic neighbours to co-generate the subjects as well as the tools and networks for graduate attributes:

- ▶ Co-curricula, extra-curricula and hidden curricula can be in symbiosis with formal curricula to integrate graduate attributes, even in unintegrated stand-alones.
 - ▶ All extra efforts where graduate attributes are taught and learnt at university, need to be supported and brought on board in the form of **credits which are academically transcribed**.
- ▶ Dialogic space must be offered if we want symbiotic partnerships to develop in the graduate attribute system.
 - ▶ Although multi-voiced dialogue is needed, consensus is not needed about graduate attributes or about disciplinary boundaries, but instead an inclusive, traversing commitment to keep visiting them.
- ▶ Disciplinary boundaries' exteriority informs the disciplinary profile.
 - ▶ If academics resist GAs, their disciplinary knowledge and skills could become **item number one on the GAs list** (with Oliver, 2013:453).
 - ▶ **Research-led** teaching can resolve some of the competing demands.
 - ▶ Changing the focus of our activity might be productive. We might map GAs to **activities**, not to outcomes.

5 Concluding recommendations

The recommendations above can be tied into effect with a few simple, practical knots. This chapter proposes that we enhance networks which do achieve GAs, wherever and however they're taught and learnt, and that universities invest in the administrative activity to transcribe existing GAs onto academic transcripts. It is a relatively simple activity emerging from theoretical traversing through impasses where the integration of GAs is not working. It's not working when we work it as a not-curriculum into curriculum. Let's try knotworking for what's not working. Let's try recording and rewarding the knots of activity working in hidden-, co-, extra- and curriculum networks. Maybe it will systemically transform some of the entanglements into tentacles of growing learning.

Going on with the graduate attribute debates and doings across the complex and conflicted terrain is the point. Much of our learning will be retrospective. We should not assume that graduate attributes are not taught and learnt, but that they are always already embedded in the holistic university experience while also needing to be developed, supported, credited, transcribed and debated.

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