

A drama of selves: Investigating teacher identity development from dialogical and complexity perspectives

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Abstract

Identity is of increasing interest in teacher education. Crucial for resilience, the development of a coherent professional identity has been characterized as emerging from tensions between multiple and sometimes conflicting conceptions of what it means to be someone who teaches (Akkerman & Meijer, 2011). While light is being shed on these often antagonistic relations, less is known about the dynamics of identity formation and transformation. Providing a contribution to work on language teacher identity, in this single case study Hermans' (2008) concept of the dialogical self is combined with complexity principles in an investigation of changes in the emerging professional identity of a pre-service English teacher during a practicum. Drawing on intra- and inter-personal data, experiences of learning to become a person who teaches English are conceptualized as a drama that is played out between different and sometimes unaligned selves. Analyses show how this inner drama maps onto the landscape of an emerging teacher identity, how tensions can be understood systemically, and how a teacher identity system can have a signature dynamic.

Keywords: language teacher identity; complex dynamic systems; dialogical self; practicum learning

1. Introduction

In learning to teach, identity construction takes place in the midst of complex systems of different relationships. It is a process characterized by tension and struggle (Alsup, 2006; Beauchamp & Thomas, 2009; Beijaard, Meijer, & Verloop, 2004). The development of a professional identity begins in the earliest stages of preservice education (Geijssel & Meijers, 2005; Walkington, 2005). Through educational experiences in formal studies and practicum learning, students “develop a more sophisticated understanding of their work as teachers” (Sutherland, Howard, & Markauskaite, 2010, p. 456). Often, the practicum is the most influential of all aspects of a preservice teacher’s education. It can also be the most difficult, demanding and frustrating (Ferrier-Kerr, 2009; Trent, 2013). Nowhere in a teacher’s preservice education is the negotiation of shifting relationships as emotionally demanding as in early periods of classroom-based learning:

Moving from a university community of student teachers to the community of a school as a new teacher implies multiple tensions as adaptations and adjustments to identity are necessitated or provoked. We understand this period as an intense identity experience, a time when the new school context causes a beginning teacher to question and perhaps reframe her developing identity. (Beauchamp & Thomas, 2011, p. 6)

In the practicum, multiple systems of relations exist in overlapping and often conflictive constellations. It is through the negotiation of relationships with university faculty, classroom mentors, pupils and preservice teaching colleagues that preservice teachers learn the work of teaching and begin to develop professional identities (Smagorinsky, Cook, Moore, Jackson, & Fry, 2004). These multiple and complexly intersecting relations create tensions that can make identity formation a highly challenging process.

It is against this backdrop that the current investigation of the process of the formation of a professional identity during a practicum is carried out. Conceptualizing teacher identity as a dialogical accomplishment where development occurs as a consequence of shifts between different identity positions that map onto the topography of a teacher identity system, the study seeks to show how identity tensions can be understood systemically. It shows how a coherent language teacher identity can be understood as emerging from conflicting perceptions of what it means to be a teacher, and how a teacher identity system can have a particular signature dynamic.

2. A dialogical perspective

The development of a coherent professional identity can be understood as a process of struggle, and a constant “search for meaning” (Britzman, 2006, p. ix).

Teacher identities are multi-faceted and dynamic (Beijaard, Meijer, & Verloop, 2004). Under continual construction and reconstruction, development takes place during interactions with others. Identity development is thus both an individual and a social process (Akkerman & Meijer, 2011; Rodgers & Scott, 2008).

While the struggles that take place between competing and sometimes irreconcilable identities are well-recognized, most studies on teacher identity development rely on retrospective self-report data and investigate identity dynamics over longer timescales (often semesters or entire programs). Far fewer focus on development across shorter timescales or are structured around data collection points that are closely-spaced. Even fewer investigate teacher identity development using dialogical data or attempt to map “the dynamics of a teachers’ identity by describing in more detail the self-dialogue that is pursued by a teacher in striving to maintain a coherent and consistent sense of self” (Akkerman & Meijer, 2011, p. 316).

Grounded in the recognition that teaching identities are constructed *within relationships*, and that development involves tensions between identities that can be conflictive, a dialogical approach offers a useful way of conceptualizing teacher identity development (Akkerman & Meijer, 2011). In research that frames teacher identities as dialogical accomplishments, the theory of the dialogical self (Hermans, 1996, 2001, 2003) provides a valuable framework for mapping development. This is because it offers a systemic approach to the conceptualization of what it means to be someone who teaches (Akkerman & Meijer, 2011). Like other theories with a focus on self-concept development, dialogical self theory emphasizes the complexity and multifacetedness of the self.

Drawing on James’ (1890) conceptualization of the self as comprising both the knower and the known, and Bakhtin’s (1981) notion of the polyphonic novel where multiple voices offer sometimes complementary and sometimes conflicting narratives, Hermans (2008) conceptualizes the inner world of the individual as a cast of characters who interact within a mesh of dialogical relations. Each of these characters has a “voice,” which is also related to the voices of other characters. As in a play, where exchanges take place between the people on stage, in the dialogical self interactions occur between “voiced positions” (Hermans, 2008). Emerging from these interactions is a complex and narratively structured self. As situations change, the drama of the self unfolds in ways where shifts take place in the relative dominance of the voices that speak. Thus, at any particular moment, some voices/positions will be dominant, while others are subdued (Hermans, 2008). It is in this way, and through the facility of imagination, that a person can act agentically *as if* they were another person, or *as if* they found themselves in another setting (Hermans, Kempen, & Van Loon, 1992).

With its emphasis on space and the framing of identity as a landscape where different aspects of the self are related to one another like points on a

map, Hermans' (2008) theory of the dialogical self provides a way of dividing the self into functional sub-parts. Each of these parts – "I-positions" in Hermans' theorizing – represents a particular aspect of identity. Systemically, the self can be understood as an ever-shifting conglomeration of potentially autonomous I-positions which, at any point in time, can re-locate to a different part of the system's space-time field (Valsiner, 2004). Following this conceptualization, the process of developing a teacher identity can be understood as one that involves interactions between I-positions within the dialogical landscape of "being someone who teaches" (Akkerman & Meijer, 2011, p. 315). Often, this space is a contested one, identities emerging through the constant need to make sense of diverging conceptions of what it means to be a teacher. Identity development is thus a product of negotiation. It is a product of attempts to interrelate I-positions in ways that can lead to a sense of self that is more or less coherent, and which can be sustained in the everyday work that takes place in classrooms.

3. A complexity perspective

The development of a teacher identity is a dynamic process (Henry, 2016; Kaplan & Garner, 2018). It involves "the formation and restructuring of relations" within and between identities and takes place "through intra- and interpersonal processes" (Kaplan & Garner, 2017, p. 2036). The investigation of developmental processes involves pursuing the questions of *why*, *when* and *how* identities emerge. Because complexity principles are focused on the *mechanisms* of development, they offer a means through which these central questions can be addressed. By focusing on the conditions under which identities evolve, a complexity approach can provide a framework for conceptualizing the integrative nature of teacher identity (Kaplan & Garner, 2017, 2018).

From a complexity perspective, the dialogical self can be understood as a bounded yet open system where, in the ongoing drama of self-definition, interactions between I-positions are situationally influenced. To investigate and make sense of these conflictive relations, and to understand the dynamics of identity development, complexity theories offer a range of conceptual tools (Bell & Das, 2011). Although traditionally connected with the natural sciences, complexity theories are now firmly established in the social sciences (Byrne & Callaghan, 2014). Complexity theories have made particular inroads in research into second language development and, more recently, second language education (Larsen-Freeman, 2017; Ortega & Han, 2017). They provide conceptualizations of change that enable phenomena relating to language development to be viewed dynamically, and principles that can be applied in the study of these processes (Hiver & Al-Hoorie, 2016; Kostoulas, Stelma, Mercer, Cameron, & Dawson, 2017; Larsen-Freeman & Cameron, 2008).

The dynamics of a complex system can be understood in terms of the system's movement across its *state space*. The system's state space comprises the total number of possible states that a system can occupy. Regions representing enduring periods of stability are conceptualized as *attractor states*. Regions representing (temporary) instabilities are *repeller states*. Transitions between attractor states can arise as a result of *perturbations* (very specific, and often very sudden changes in the context). They can also be triggered through changes in the system's *control parameters* (dimensions that constitute the state space and which have a "controlling" function). Transitions to a new area of the state space involve a *phase shift*. New system behaviors are understood as *emergent properties*. These are aspects of functioning not existing previously which originate in a spontaneous manner from the system's own internal interactions and *self-organization* (Byrne & Callaghan, 2014; Larsen-Freeman & Cameron, 2008).

Using these dynamical conceptualizations, research conducted from a complexity perspective has the aim of *representing* particular systems at particular scales of description, *identifying* dynamical patterns of change and their emergent outcomes, and *modelling* the mechanisms that give rise to change (Hiver & Al-Hoorie, 2016). Because the aim of complexity-informed research is to develop understanding of the parameters that influence a system, and in so doing to identify opportunities for effecting positive changes, a complex system is often described in terms of distinct dynamical characteristics. These are the system's *signature dynamics* (Byrne & Callaghan, 2014; Dörnyei, 2014; van Geert & Lichtwarck-Aschoff, 2005). Identifying a system's signature dynamics involves mapping the system's state space, identifying the attractor (and repeller) states, and plotting the movement between these states. It involves developing an understanding of the types of movement that take place, the events that prefigure such changes, and, at the system level, the nature and the effects of changed behaviors.

4. Study and purpose

In a previous study in which a dialogical model of identity was combined with a complexity perspective, Henry (2016) examined the identity dynamics of a pre-service English teacher undertaking her first extended practicum. Drawing on data from the same project, a similar approach is taken in the current study. In this previous study, the participant found herself consistently questioning the practices of her mentor and the other teachers at the school and, as a consequence, also her own motives for wanting to be a teacher. For this student, the struggles she experienced in developing a coherent teacher identity were characterized by ambivalence. With tensions between two competing I-positions in

her teacher identity system remaining unresolved, at the end of the practicum she was uncertain about whether she wanted to continue her education.

While struggles that take place during the practicum can lead to doubt and career reorientations (Bloomfield, 2010), they can also be productive and lead to emerging identities that are oriented to future practice (Trent, 2011). In contrast to the participant in this previous study, the participant in the current study found herself in an environment that supported her professional development. Here, in mapping a different set of identity dynamics, and focusing on the ways in which a coherent language teacher identity can emerge within the “inside world” of a student teacher’s imagination (Hermans, 2001, p. 249), the study seeks to show how identity tensions can be understood systemically and how a teacher identity system can have a particular signature dynamic.

5. Method

5.1. Design

Studies in which complexity principles are used to investigate identity development need to focus on (i) an identity system, (ii) the contexts in which it is embedded, and (iii) changes that take place over time (Kaplan & Garner, 2017). Case studies of identity systems will therefore often involve the triangulation of data that is derived from multiple sources. Following the design described by Klimstra et al. (2010), analyses with a focus on identity dynamics occurring across shorter timescales (specific events in the classroom) were combined with analyses designed to reveal evolutionary patterns over longer timescales (across the practicum as a whole).

5.2 The participant

The participant was a preservice English teacher undertaking a 4-week practicum at a school in the western part of Sweden. She was the study partner of the participant in a previous single case study on teacher identity dynamics (Henry, 2016). The participant and her colleague were selected to take part in the research on the basis of three considerations.

First, when carrying out teaching practice, concerns relating to self-disclosure and the handling of sensitive topics and events can have constraining effects on a student’s engagement in “in-public” activities, such as posting contributions on online forums (Chu, Kwan, & Warning, 2012; Deng & Yuen, 2013). These two students had established a trusting relationship. This meant that they were comfortable sharing experiences on an externally monitored forum. Second, in

studies using complexity methodologies, data rich in detail needs to be collected across points in time that are closely spaced (Kaplan & Garner, 2017). For this reason it was necessary to select students who viewed the practicum as an important space for developing a professional identity and who were willing to discuss their day-to-day experiences. Both students had demonstrated ambition and conscientiousness during their education and were selected for this reason. Finally, given the purpose of investigating the dynamics of identity development, it was important to select participants who, to some extent, displayed uncertainty about the embarked-upon career. Both students viewed the practicum as a testing ground for their career choice and hoped to gain an early indication that teaching was right for them.

5.3. The data

Intra- and inter-personal data (Jasper, Moore, Whittaker, & Gillespie, 2012) were generated. The *intra-personal* data comes from two semi-structured interviews conducted by the author immediately before, and immediately after the practicum period. The *inter-personal* data comes from two sources: (i) postings made by the participant on an online forum ($n = 22$), where she and the other student maintained a conversation during the practicum, and (ii) a 40-minute, video-recorded, stimulated recall discussion between these two students immediately subsequent to a lesson that the participant had carried out. This combination of intra- and inter-personal data offers a window into the participant's processes of sense-making, and her authoring of a dialogical self. While the *intra-personal* data can provide insights into beliefs and cognitions, the *inter-personal* data can cast light on the internal dialogue between voiced positions in the dialogical landscape of becoming someone who teaches. All of the data generated was in English.

5.4. Analytical procedures

A discourse analytical approach was used (Coyle, 2006; Potter & Wetherell, 1995). This included a strategy specially developed for investigating inner dynamics within the dialogical self (Bell & Das, 2011; Duarte & Gonçalves, 2007).

In a first stage, I carefully read the forum postings and the interview transcripts. This provided me with opportunities to experience these texts as a reader. It enabled me to develop an understanding of what the text was doing, and how this was accomplished. In the second stage I coded the text. Doing this, my aim was to identify instances where an identity (I-position) was articulated. On each occasion when an identity was voiced, I shaded the text segment, and copied the extract into an adjacent comment box (using the "comment" function

in Word). Doing this, my aim was to be as inclusive as possible. Thus, even borderline examples of identity articulations were included.

In a third stage, I examined these extracts in more detail. My aim here was to identify the function of an utterance. Reading the text in a situated manner, I attempted to relate articulations of identity to discourses associated with teacher education, practice learning, and to teaching secondary level English in the Swedish context. This involved focusing on the linguistic construction of the text. Using the comment boxes, I made notes about the rhetorical function of discourse features. Here, I paid particular attention to features in the discourse that might reveal an identity position that was currently foregrounded, and to variability within the discourse that could indicate whether a shift in identity position might have taken place. In a final stage, and for each identified I-position, I considered whether this was the *same* I-position as that narrated immediately previously, and if not, whether it constituted *either* an entirely new I-position *or* an I-position previously identified in the data and which was foregrounded again. These shifts were similarly noted in the comment boxes. Working in this way, I was able to plot the movement between I-positions across each of the three types of data.

5.5. Ethical considerations

Information about the research was provided to the participant and her student colleague. Assurances of confidentiality were given, together with information that participation was voluntary and that withdrawal was possible at any time. Written consent was obtained from both students.

6. Results and discussion

Prior to starting teacher education, the participant, Sara, had spent 15 years in a service sector job. Although changes at her workplace provided the impetus to embark on a teaching career, in the initial interview she made clear that the idea of teaching English had “always been there since leaving school.” It was not, she said, “something I’ve come up with like a whim . . . It’s always been there. I wasn’t even applying for anything else when I applied. I knew what I wanted to apply for.”

6.1. I-positions at the start of the practicum

In the interview before the start of the 4-week practicum, Sara had the opportunity to talk about her feelings. She spoke of how she was looking forward to an extended period in the workplace, how she valued the opportunity to experience the work of teaching English, and how she saw it as “my chance to get

proper experience of the job.” She talked about hoping to feel confident in the classroom and was adamant that she wanted to contribute to the work taking place, and of not “feeling that I am being in the way” or of being “a burden to my LUV.”¹ Asked how she viewed herself at this stage in her education and how she hoped to develop over the coming weeks, she talked of wanting to experience confirmation of her ability to teach, and said that the work of teaching would feel right for her: “That the more time it gets, the more confident I will become. That I will feel that I have chosen the right thing. And that it will be that it is not just something I think I can do, but will come up as a thing that I can do.” She talked also of being “curious about the students” and said that a commitment to young people’s development was another reason “why I want to do the job. For the students.”

For Sara the story she tells is both about who she *is* as a person aspiring to be a teacher and, through the exercise of imagination, who she hopes to *become* as a person who teaches. Narratives of the self not only provide opportunities for reflection on who one has been in the past and who one is in the present; they also enable the telling of who one will be in the future (Henry, 2019). In projecting forward and describing how she hopes the practicum will be, Sara expresses a desire for validation (“that it will be that it is not just something I think I can do”) and articulates the hope that she will be perceived as a resource (“I don’t want to be a burden to my LUV”). In this way, she positions herself as an *emerging practitioner*. Even though the practicum is the first extended period she will spend in a school, the role she imagines for herself is not that of a bystander; rather it is of someone who is engaged in the practice of teaching English. In imagining the nature of this work, Sara describes herself as someone who can teach English, and someone who will be actively involved in facilitating students’ learning.

6.2. Initial conditions and system resilience

In Hermans’ (1996) theory of the dialogical self, identities are accomplishments traceable to interactions between I-positions. As in a story, in the internal dialogue of the self the responses of the characters (the I-positions) relate to both current and previously occurring events. In this ongoing story of the self, immediately preceding events can be understood as “initial conditions.” In a dynamic system, initial conditions represent the state of the system at the point in time that an observation sequence begins. Initial conditions have a determining influence on the trajectory that the system takes across its state space (Larsen-Freeman & Cameron, 2008). Consequently, at the time that observations begin,

¹ Mentor

it is important to ascertain whether the system is in a more generally stable or a more generally instable state (Verspoor, 2015). A system that is in a more generally stable state is likely to display high resilience to perturbations. In the state space topography, this would be represented by an attractor state with a broad basin and deep-sided valley walls (Nowak, Vallacher, & Zochowski, 2005). If perturbed, the return of the system to an attractor state of this type would be rapid. However, if the system is in a less stable state (i.e., the basin of attraction is shallower), it can be more easily perturbed. Phase shifts – the movements of the system to a new area of the state space – would be more likely to occur.

At the beginning of the practicum, Sara's teacher identity system is in a generally stable state. It can be understood as lodged within an attractor state that represents the *emerging practitioner* I-position. This, for example, is revealed in her opening contribution to the forum dialogue at the end of the practicum's first day:

Excerpt 1 (forum post, Day 1)

My LUV made a real effort to make sure I got introduced to all of her colleagues, in the "program team" she is a part of, and they all made me feel very welcome. We have had some really good conversations about some of the approaches she uses to teach and why. And she has started to give me copies of material she works with and makes herself. She tries to mix the textbook and own-made material, so I got to help her out with that. "She put me to work", made me feel useful which I really appreciated. Even in classroom she through me straight in to help the students with their tasks that they were working with, and I have to admit it was a confidant boost. That I actually could help, but also that she believed in/trusted me to do so.

In articulating the experience of how her mentor "put me to work," Sara voices the experience of being the person she imagined herself to be before the start of the practicum, someone who is a resource in classroom practice. This is similarly the case when she tells how "we have had some really good conversations about some of the approaches she uses to teach and why." Even though Sara is an early-program student, and she and her mentor have not previously met, as a discourse marker the pronoun 'we' functions to indicate that her knowledge and interests are recognized by an experienced teacher who finds herself having to explain and justify her pedagogical strategies. That such conversations have been identified as valuable to mentors has been noted by Akkerman and Meijer (2011), who point out that student teachers are increasingly perceived as 'brokers' "who open up possibilities for experienced teachers and schools to learn, for example, by asking critical questions" (p. 315).

Voice is also given to the sense of being someone who can facilitate students' learning and who is able to teach English. This is also part of the *emerging*

practitioner identity. For example, Sara writes that “even in classroom she through me straight in to help the students with their tasks that they were working with, and I have to admit it was a confidant boost. That I actually could help.” The foregrounding of this I-position at the beginning of the practicum is further confirmed when, in the second interview (at the end of the practicum), Sara reflects on these early days. She says that her mentor “was good at showing me and appreciating me,” that her presence in the classroom was valued, that “she was not just having me for me, she’s having me for her as well,” and that this was something her mentor “continuously showed me.”

However, even when the basin of attraction of a governing attractor state is deep-sided and broadly-stretched, the system is never entirely stable. A dynamic system is always prone to perturbations (Larsen-Freeman & Cameron, 2008). Micro-level events that have a perturbing effect on the system and which temporarily dislodge it from the attractor state representing the *emerging practitioner* I-position form the subject of posts written on the two subsequent days:

Excerpt 2 (forum post, Day 2)

In a split second! Something came up today and my LUV had to leave the classroom for a few minutes to give some instructions. We were having a class in her second subject and I was asked to get the lesson started, to read aloud to the class, and for a split of a second I felt like I was 9-10 again and forced to do something that I'd been repeatedly told I was bad at. It is strange how a thing like that can kind of throws one off guard even if it just for a short while. Anyhow, I'm there to learn, and couldn't really say no now could I, so I started to read. You know what, about 16 boys sat totally quiet and just listened, no talking or laughing just sat there quiet and listening. Good feeling 😊 maybe about time after what, 20 some years or so, to start realizing I'm not that 10 year old girl anymore when it comes to reading, and that I actually can read aloud as good as anyone else. I got asked again of my LUV if it felt ok to read and if I could do it again, so I did with a lot more confident the second time.

Excerpt 3 (forum post, Day 3)

It was my LUV's second subject again. I got to go through a thing on whiteboard today, something that she kind of just asked if I could do when we were in class and not before. It kind of threw me off guard a bit making me nervous, not that I didn't know anything about the subject just that I was so totally unprepared and had to improvise. I have never really gone through something like that before, not even written on the whiteboard for that matter. Of course I told her I was ok, and that she had to fill in if she felt I had missed something, not wanting her to think I was nervous about it. Hmmm. I did mention it after class though, that I'd never done anything like that before. Maybe she'll give me more notice next time. 😊 Mind you a strange feeling I have now looking back at it is that maybe I shouldn't get to much time to prepare, not have time make a big thing about it, and learn to trust myself, trust my instincts, and believe that I can do this. Not having time to get nervous about it I mean. Not saying that I don't need to plan

ahead for bigger assignments, but little once like today and yesterday. Got to read for class aloud today again, and guess what it wasn't even close to be as "frightening" to do it today as I felt yesterday. Third time is a charm 😊

In the first of these excerpts, Sara describes a situation where, unexpectedly asked to read aloud to the class, she experiences anxiety. Instantly, she recalls previous unpleasant experiences of having to read for others, and she describes how she momentarily loses her self-confidence. In the second situation an equally unexpected request generates a similar response. Asked to explain something on the whiteboard, Sara describes how this request "kind of threw me off guard a bit making me nervous." In both cases the system is rapidly dislodged from its attractor state and transitions into a repeller state. Repeller states are non-enduring periods of instability which, in the state space topography, form the ridges between the valleys of attractor states, as shown in Figure 1. When a cognitive/affective system enters a repeller state, negative emotions are generated. Consequently, the system rarely remains there for any extended period of time (MacIntryre & Serroul, 2015).

Following a shift to a repeller state, a system is likely to return to its previous attractor state. However, this passage may not always be direct. Evidenced in both of these forum entries, movement back to the attractor state representing the *emerging practitioner* I-position takes place via a newly emergent I-position, that of a *student-apprentice*. This is someone who is expected to follow the instructions of a superior and to carry out allocated tasks. While Sara says that she had "never really gone through something like that before," she also recognizes that she has little choice but to carry out the instructions: "I'm there to learn, and couldn't really say no." Although, as an attractor state, the newly emergent *student-apprentice* I-position is not one in which the system remains for any length of time, it is here that the system gravitates whenever Sara loses confidence, when she is reminded of knowledge or experiences that she does not yet possess, or when she becomes frustrated by aspects of her mentor's classroom practice.

However, as seen in Excerpt 2, the positive experience of successfully accomplishing a challenging task – "16 boys sat totally quiet and just listened" – functions to quickly shift the system back to the *emerging practitioner* attractor state. On the subsequent occasions when she reads to the class, Sara's confidence in her abilities grows. On the third occasion she describes this as "a charm 😊." This leads to the reflection that in the future she should maybe not be given too much time to prepare for tasks like this. Reflections of this sort also represent newly emergent system behavior. Recognition of being a valued resource in classroom practice, and having the ability to facilitate students' learning, function to strengthen her sense of self as an *emerging practitioner*. As the basin of attraction of the system's governing attractor becomes deeper and broader, the

system becomes more securely anchored. This has the consequence that, in the face of potential perturbations, it will demonstrate greater resilience.

When a new position within an identity system has been narratively created, it also becomes more readily accessible in the future (Lewis & Ferrari, 2000). Moving further into the practicum, the I-position of the *student-apprentice* is an attractor state to which the system gravitates with greater frequency. In the final week, Sara's posts on the online forum reflect a deeper frustration in working alongside her mentor. In the post-practicum interview, she explains how she began to experience being restricted by her mentor's approach and her methods:

Excerpt 4 (post-practicum interview)

I did feel after the third week that I wanted to do my own thing. Not because I had had enough of the school, because I loved it. The days went so fast. But I started to realize that I wanted to do it my way. And when you are in a VFU² you just you are trapped into following everybody else's footsteps.

6.3. Signature dynamics

Dynamic systems can be described in terms of their signature dynamics (Dörnyei, 2014). Signature dynamics are "the robust causal mechanisms within a system" (Hiver, 2017, p. 672). Viewed over the practicum period, the signature dynamics of Sara's teacher identity system reveal a shifting back and forwards between these two attractor states and reflect a pattern where the two I-positions (the *emerging practitioner* and the *student-apprentice*) are variously foregrounded and backgrounded. As revealed in Excerpts 3 and 4, on occasion shifts between these attractor states could take place via a repeller state where, momentarily, the system lacks anchoring. Periodic shifts between these two attractor states reflect a period of "multi-stability," a pattern of instability that is generally predictable (Vallacher, van Geert, & Nowak, 2015).

6.4. The emergence of a new I-position

Being asked to read aloud (Excerpt 2), and to use the whiteboard (Excerpt 3), are perturbations that affect the system across shorter timescales (each a matter of seconds). Dynamic systems also demonstrate fluctuations over longer timescales (Larsen-Freeman & Cameron, 2008). Following the initial period of adjusting to the conditions of learning to teach in her mentor's classroom, and around the third week of the practicum, a new I-position in Sara's teacher identity system appears to emerge. The self-narratives that create I-positions have a powerful imaginative

² Practicum

dimension, meaning that the dialogical self is always oriented to the future. Indeed, in the process of the self's becoming, the present exists merely as an unstable moment (Hermans, 2008). As Bento, Cunha, and Salgado (2012) explain, it is imagination that enables the individual "to construct what is not yet present and project something into the future" (p. 428). Self-narratives about the future are constructed in the contexts of stories told about the present, and it is through ongoing processes of interrelations between I-positions that relate to the past, the present and the future that a coherent and consistent sense of the self can emerge (Akkerman & Meijer, 2011).

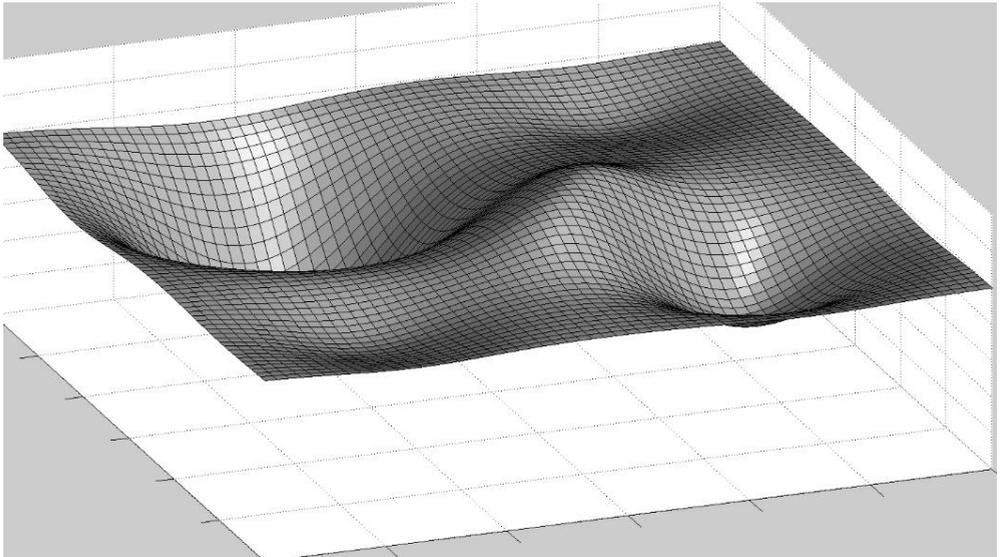


Figure 1 The state space topography of the participant's teacher identity system. The two deeper indentations (top-left and bottom-right) represent the system's governing attractor states and correspond to the *emerging practitioner* and *student-apprentice* I-positions. The ridge between these indentations represents a repeller state, a moment in time when the system temporarily lacks anchoring.

Sara's growing self-confidence in the classroom means that the *emerging practitioner* I-position is more frequently foregrounded. However, in the following excerpts, we see how the emergence of a new I-position disrupts this development. In a dynamic system, a phase shift represents a sudden change where the system self-organizes into a new pattern of behavior. Downstream from a phase shift, behavior is qualitatively different from that previously pertaining. It possesses a distinct and recognizable wholeness (Larsen-Freeman & Cameron, 2008). Similarly to the *emerging practitioner* I-position, this new I-position is constructed from narratives that encompass imaginal elements and which involve projections into the future:

Excerpt 5 (stimulated recall, Day 12)

Here because I've not gone through what I've planned I'm actually just trying to speed things up. So I've cut so much out so I kind of realise I need to do this [motions with hands at the screen] to get to the next part. Urm. [pause] And I'm thinking how I'm gonna connect to the next. This is how I'm thinking there. I need to get from here to the next part. Though I'm thinking they kind of need to [pause] So that's going through my mind when I'm, I'm doing this. Erm. Well I'm actually thinking about it the whole time when I'm [motions with hands towards the screen] I'm going to have to do the next thing and connect it to it. . . . I, I think that it's something I'm going to come across quite a lot and I think that, I think that, I don't know, obviously I need to practice on it and maybe it gets better, erm, but I do think that sometimes you never know what's going to happen in a classroom and I think that I'm going to come across it a lot, but I just need to work the time better, and hopefully that's something that comes with, comes with experience.

Excerpt 6 (forum post, Day 18)

Sad thing and a little depressing in all this though is that it here shows that my LUV doesn't have sufficient the time to spend with each and every student in the classroom that is needed to give the individual student the time they need. Take for example student 2, that now will get a grade in this subject, and most likely a C, and most probably wouldn't gotten a grade at all if it hadn't been for the fact that we now for 4 weeks have been two people in the classroom instead of 1. Not that my LUV isn't trying to "see" all the students but if you have a student that you over and over again tell that you need them to work and hand things in, and the student doesn't what is there to do? . . . I know this is the back side of this profession; that time and money sadly limits the teacher to do all that they want to do for their students and that I one day also will be faced with these problems. However, the feeling, the satisfaction I feel after today still over powers that. How good it feels to see how proud the students become of themselves when they have achieved a goal/task, and how good it feels to have been a part of their achievement.

In both of these excerpts, Sara demonstrates an awareness of the constraints and challenges faced in the context of carrying out teaching in her mentor's classroom. As Bloomfield (2010) observes, during the practicum pre-service teachers embark on journeys of learning. These journeys involve conflict and struggle; learning to teach requires continual compromise, and preservice teachers can become embroiled in constant processes of accommodation. While in the first of these excerpts Sara recognizes how she needs to cut back on the content of her lesson in order to complete it within the stipulated timeframe, in the second she reflects on the needs-resources equation and how the teacher's limited time impacts negatively on students' opportunities for growth.

However, it is important to be aware that these challenges are perceived not only in the context of the current practice in which Sara is involved. In sharing

her experiences with her preservice teacher colleague in the stimulated recall discussion (Excerpt 5) and in the discussion forum (Excerpt 6), she projects into an imaginary future, framing the problems as challenges to be addressed in the imaginal spaces of future practice. While in Excerpt 5 the challenge she envisages involves structuring activities in ways that can enable students to create meaning ("I think that it's something I'm going to come across quite a lot"), in Excerpt 6 a future working life is envisaged in the recognition that resource constraints can prevent students from fully developing their potential ("I know . . . that I one day also will be faced with these problems").

Unlike the *emerging practitioner* and *student-apprentice* I-positions, which more generally involve orientations to conditions currently prevailing, the I-position that emerges here involves an undetermined language teaching future. In dialogical self theory, the self is not only "here," but also "there" (Hermans, 2008). It is through the power of imagination that the person can act "as if he or she were the other and the other were him- or herself" (Hermans, 2001, p. 250). This newly emergent I-position – a *challenged practitioner* – constitutes a new attractor state in the system's state space. However, it is not just the sense in which Sara frames her present experiences in terms of imagined future challenges that is characteristic of this new I-position. The *challenged practitioner* also differs from the *emerging practitioner* in the manner in which it is narratively constructed. In voicing concerns about the challenges she expects to face in the future, Sara narrates a self-identity as a member of a community of practice of other teaching professionals: ". . . if it hadn't been for the fact that *we* [emphases added] now for 4 weeks have been two people in the classroom instead of 1," "but I do think that sometimes *you* never know what's going to happen in a classroom" (Excerpt 5), and "not that my LUV isn't trying to 'see' all the students but if *you* have a student that *you* over and over again tell that you need them to work and hand things in, and the student doesn't what is there to do?" (Excerpt 6). Pre-service teachers look to the future, often foreseeing different self-identities, such as for example being an inspiring teacher. Providing a source for identity formation, imagined future practice enables the pre-service teacher to transcend immediate situations and to create visual representations of themselves in broader contexts of professional work (Trent, 2011). It is through acts of imagination of this sort, and from the voices that are articulated in these representations, that professional identities develop.

7. Conclusion

Comprised of I-positions oriented towards the past, the present and the future, the dialogical self is temporally configured. Mapping the processes of this participant's teacher identity development, three I-positions were identified. While

the *student-apprentice* I-position is oriented to presently pertaining conditions in learning the work of teaching, the *emerging practitioner* and the *challenged practitioner* involve narrative interpretations of current events from a vantage point in an imagined future. In common with possible selves (Markus & Nurius, 1986) and McAdams' (1985) notion of the imago, I-positions have a function in guiding current behavior (Henry, 2019). The dialogical self is both "here" (in the present) and "there" (in the future). As Hermans (2001) explains, it is through the power of imagination that a "person can act as if he or she were the other and the other were him- or herself" (p. 250). As revealed in the exploration of identity dynamics in this study, *experience* and *imagination* combine in the development of an identity of being someone who teaches English.

The practicum is a place of struggle, and the process of developing a teacher identity is rarely linear (Beauchamp & Thomas, 2009). In this study, tensions are in evidence in momentary periods where the system enters a repeller state, and when shifts take place between attractor states that represent I-positions which are contradictory in nature. While together the forum posts offer evidence of identity development over time – specifically the emergence of the I-position of the *challenged practitioner* which is more frequently foregrounded in the posts towards the end of the period – examinations across shorter time-scales (i.e., within a particular post) reveal how changes in the immediate context of learning to teach can trigger changes in the identity system.

In this study, investigation of the identity narratives of the pre-service teacher participant has shed light on the dynamical processes through which a professional identity develops. Focusing on the complexity principles of self-organization and emergence, analyses show how a language teacher identity is dialogically constructed, how I-positions are foregrounded and backgrounded, and how new I-positions come into being. As evidenced in the inter-personal data used in the study, it is through the dynamical positioning and repositioning of voiced identities within the dialogical self of being someone who teaches that innovation takes place.

In everyday interactions in language classrooms, teachers are constantly involved in identity work; everything that a teacher does and knows is in some way implicated in the continual process of identity formation (Miller, 2009). Together with a complexity-framing, the conceptualization of language teacher identity as a collection of narratively constructed I-positions makes it possible to shed light on identity development as it takes place. Because it provides a means of understanding the in-situ mechanics of identity shifts, the complexity approach adopted in the study has enabled identity development to be investigated as a process in motion that is operative across varying timescales. Furthermore, in taking a perspective in which I-positions are understood as attractor states in a complex dynamic system, it is possible to understand how the foregrounding

of a particular I-position can have effects not only at the system level but also on other interpenetrating systems.

As seen here, and in a previous study (Henry, 2016), a contextual change will often coincide with a shift in a mood. In Sara's teacher identity system, the attractor state representing the *emerging practitioner* I-position has a wide basin of attraction for positive emotions; she feels good when things go well, and when students respond in anticipated ways. Equally, the attractor state representing the *student-apprentice* I-position has a wide basin of attraction for negative emotions. Having to work in ways contrary to her beliefs about effective teaching, she experiences negative emotion. Importantly, when an emotional experience is sufficiently incongruent with the system's currently governing attractor – for example experiencing a positive response from a student when the system is in the *student-apprentice* attractor state – movement to a different part of the state space can be triggered. Revealing how shifts in the teacher identity system have consequences for other systems is also an insight of importance that emerges from this study.

In periods of learning such as the practicum where processes of identity development can be particularly intense, the conceptualization of teacher identity as dialogical and dynamic can provide a valuable pedagogical tool in the education of pre-service teachers. In the same way that Johnston (1997) highlights the theoretical value of Bakhtinian notions of identity in “detecting and unraveling the multiple, competing discourses present in the teachers’ speech” and in conceptualizing “teachers’ lives in EFL/ESL in a way that captures the complexities and contradictions of those lives without a general descent into incoherence” (p. 707), from a practice perspective I-positions can be similarly used to identify, explore and untangle developing professional identities and their effects. For pre-service teachers, the process of learning to work can be supported through the development of insights into the complexities of identity work (Henry & Tynkkinen, 2017). Models that enable students to conceptualize identity as multivoiced, and which frame identity tensions as struggles between antagonists in a play who have competing opinions, can provide a practical means of investigating the dramas of the self that play out when learning to teach. Working with identity work in this way can play an important role in student-mentoring (Henry, 2019).

Of course, it is impossible to predict the exact nature of the struggles and the types of tension that teachers have to confront in developing a professional identity (Pillen, Den Brok, & Beijaard, 2013). However, by enabling pre-service teachers to recognize that the development of a professional identity necessarily involves conflicts between competing conceptualizations of what it means to be a teacher, *and* by providing them with models through which identities can be mapped and

developmental processes can be unraveled, dialogical conceptualizations of the self can play an important role in the mentoring process.

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