Unifying cognition, emotion, and activity in language teacher professional development

Paula Golombek [a,*], Meredith Doran [b]

[a] Department of Linguistics, University of Florida, PO Box 115454, Gainesville, FL 32611-5454, USA
[b] Department of Applied Linguistics, The Pennsylvania State University, 305 Sparks Building, University Park, PA 16802, USA

HIGHLIGHTS

- Emotion in is a functional component of language teachers' cognitive development.
- Emotional content indexes areas of further cognitive/conceptual development.
- We propose a SCOBA and heuristic identifying emotion, cognition, and activity.
- SCOBA offers resource for language teacher educators to mediate teachers responsively.

ARTICLE INFO

ABSTRACT

Emotions in the learning-to-teach experience are often ignored or downplayed by teacher educators. Using content and discourse analysis of a novice language teacher's journals, we demonstrate that the pervasive emotional content, reflecting individual teacher's *perezhivanie*, is a motivated, structural component of teachers' processes of cognitive development. Emotional content indexes dissonance between the ideal and reality, offering potential growth points. We apply a SCOBA of language teacher learning that unifies the dynamic, dialectical relationship among emotion, cognition, and activity, in order to orient teacher educators in mediating novice language teachers' professional development responsively.

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1. Introduction

Teacher educators may question whether and how to respond to the intense and often conflicting emotions expressed in the reflection journals of a novice teacher[1] who is overcome by the demands of early classroom teaching experiences. For language teacher educators, whether enduring a gnawing sense of unease, or empathizing in a knowing way, the response to an emotional teacher may be to provide an empty reassurance that "everything is going to be okay" or to shift focus to alleviate discomfort. This instinct to ignore or stifle emotional expression in a professional context is hardly surprising, given that emotion has been characterized historically as primitive, irrational, and feminine, and thus as an impediment to the development of higher level cognitive processes (Nussbaum, 2001). The message of our rationalist intellectual tradition is clear: Logical thinking is the path to professional development.

That rationalist intellectual tradition has been challenged, however, by a substantial body of literature that has emerged in the past three decades addressing the centrality of emotions in teachers' lives (Day & Leitch, 2001; Nias, 1996; Schutz & Pekrun, 2007; Schutz & Zembylas, 2009; Sutton & Wheatley, 2003; van Veen & Lasky, 2005). Much of this work has focused on the *emotional labor* of teaching (Hargreaves, 2000, 2001; Zembylas, 2005), which involves teachers' interactional work as managers of others' emotional states, including students and parents. Research has highlighted the ways in which teachers negotiate their own emotional states in professional settings, including the stresses of responding to administrative reforms, which can lead to teacher burn-out (Jackson, Schwab, & Schuler, 1986; Maslach, 1982). Studies

* Corresponding author. Tel.: +1 352 294 7459; fax: +1 352 392 8480.
E-mail addresses: pgolombek@ufl.edu (P. Golombek), mcd15@psu.edu (M. Doran).

[1] For variety, we will use novice teacher, beginning teacher, and teacher learner interchangeably.

have noted ways in which positive affective relationships with students, in and out of the classroom, are an important source of psychic rewards for teachers, contributing to job satisfaction (Day, 2002; Hargreaves, 1998). Of considerable consequence for teacher educators, researchers have argued for the intrinsic interconnection between emotion and cognition in teacher development of professional identity (Bullough, 2009; Dang, 2013; Meyer, 2009; Zembylas, 2003a, 2003b, 2005), as well as conceptual change (Golombek & Johnson, 2004; Gregoire, 2003; Kubanyiova, 2012).

These studies have made a persuasive case for the multidimensional role of emotions in teachers' professional development and in their day-to-day teaching lives, though they have not necessarily suggested interventional responses to acknowledge, mitigate, or improve teachers' emotional stances systematically. The question persists: How does a language teacher educator make sense of the pervasive emotional content present in novice teacher reflection journals as they react to their initial teaching experiences in the language classroom?

We, as language teacher educators, have puzzled over addressing emotional content in reflection journals because of several ethical issues (Akbari, 2007; Bolin, 1990). Journal writing has been critiqued as a kind of "surveillance" of students (Fendler, 2003, p. 22), as a forced confessional or therapy (Gore, 1993), and as conservers of beliefs, especially liberal meritocratic notions of self and agency (Loughran, 2002; Smyth, 1992). Strand (2006) summarized a triad of dilemmas teacher educators face in requiring reflection journals: beginning teachers not knowing how to reflect, not wanting to reflect, and not all enhancing their practice through reflection. Novice teachers may not want to self-disclose and/or may present narratives to meet a teacher educator's expectations—both for legitimate reasons. Consequently, we maintain that reflection journals cannot be a graded requirement if a teacher educator is going to use those disclosures to mediate language teachers' emotions for professional development. This article thus aims to guide language teacher educators to address novice teacher emotion systematically in the learning-to-teach experience by detailing the *indexing* (Peirce, 1894/1998) role of emotions expressed in reflection journals within a *scheme of a complete orienting basis of the action* (SCOBA) highlighting the interrelationship among emotion, cognition, and activity. Within cultural historical activity theory, Galperin (1992) developed SCOBA as a cultural-cognitive tool to orient learners to their participation in pedagogical activities. In this case we intend the SCOBA to orient language teacher educators as they respond to novice teacher emotions in the activity of journal writing.

In the first part of this article, we situate our work within the field of language teacher research and education by positioning ourselves with regard to key theoretical proposals concerning language teacher cognition. We then present the key constructs of the SCOBA and analysis, grounded in sociocultural theory and Peirce's semiotic theory, highlighting how teacher journals enable language teacher educators to build understanding of novice teachers' *perezhivanie* (Vygotsky, 1994), or lived emotional experience. We then illustrate the SCOBA by storying the case of a focal participant, Josie, as a paradigmatic example.

1.1. Reframing thinking, doing, and feeling in language teacher education

Language teacher cognition has been defined in Borg's (2003) synthesis of research on language teacher cognition, as "what language teachers think, know, believe, and do" (p. 81). Noticeably absent from this definition is what teachers feel about what they think, know, believe, and do. An emotional subtext can be implied in some of this research, such as the role of positive and negative prior language learning experiences on teaching thinking and instructional

decisions, in which teachers appraise their language learning experiences in order to identify beneficial and detrimental instructional practices (Freeman, 1991, 1993; Golombek, 1998; Johnson, 1992, 1994; Numrich, 1996). Researchers investigating novice language teachers have used various constructs that evoke emotional connotations for example, "tension" (Freeman, 1993; Golombek, 1998; Johnson, 1996; Moran, 1996; Phipps & Borg, 2009) and "concerns" (Richards, Ho, & Giblin, 1996). Recently, research based in sociocultural theory in language teacher education has addressed teacher emotion overtly through the concepts of *contradictions*, (Engeström, 1987; Vygotsky, 1978), and *emotional dissonance* as potential sources of novice teacher learning (Childs, 2011; DiPardo & Porter, 2003; Golombek & Johnson, 2004; Reis, 2011).

Borg's (2003) synthesis is noteworthy in its call for a unifying conceptual framework that would consolidate research and direct attention to outstanding issues in order to advance the field. Though others have argued for the value of Vygotskian sociocultural theory for examining and explaining language teacher development (Johnson, 2009; Johnson & Golombek, 2003), Cross (2010) argued for the explanatory power that Vygotskian sociocultural theory holds as a theoretical framework to explore Borg's proposed research agenda. By arguing for the genetic-analytical orientation underlying a Vygotskian sociocultural approach, Cross emphasizes that how a particular teacher thinks and what s/he does at a particular time should be analyzed in terms of the historical origins and development, or historicity, "that underpins that thought/practice relationship" (p. 439). The inclusion of *perezhivanie* in our theoretical framework, similar to Dang (2013), addresses each teacher's historicity in terms of his/her feeling, thinking, and doing of teaching. Whereas Cross's framework highlights the dialects between thinking and doing, albeit within social, contextual, historical, and political dimensions, our representation differs in that it explicitly addresses feeling as being on the same level and in interaction with the thinking and doing of teaching.

Rather than looking to unify the conceptual frameworks with which language teacher cognition is studied, Kubanyiova (2012) has argued, again in response to Borg (2003), that narrowing to a single theory may restrict our understanding of the complex process of teacher development. Borrowing from work largely within a social cognitive perspective in psychology, she designed and empirically supported a model of Language Teacher Conceptual Change (LTCC) based on Gregoire's (2003) model. Within social cognitive perspectives, triadic representations of feelings, thoughts, and actions have long been fundamental, as Zimmerman (2000) notes, to defining *self-regulation* (Bandura, 1986); and embedded using varied terminology in models of self-regulated learning (e.g., Zimmerman, 1994). Kubanyiova (2012) expanded on this tradition by connecting conceptual change with teacher identity through *possible selves theory* (Markus & Nurius, 1986). Kubanyiova's model clarifies the catalytic role of emotions in conceptual development that has been proposed (Galman, 2009; Golombek & Johnson, 2004), and introduces additional affective factors, such as motivation, that influence not only conceptual change but teacher identity. She underscores that feelings of dissonance do not always lead to conceptual change, describing emotional dissonance as an "essential but insufficient catalyst for conceptual change" (p. 124). Our work thus also aligns with social cognitive approaches, especially Kubanyiova's (2012) model, which richly details the role of emotion in promoting and failing to promote, language teachers' conceptual change. Our intention, however, is to interpret Vygotsky's initial theorizing on emotion and cognition, positioning emotion as on par and in dialectical relationship with cognition and activity, and represent his contention that conceptual change as development necessitates transformation of both thinking and activity (Valsiner & van der Veer, 2000).

Our project, rooted within sociocultural theory, is thus distinctive with respect to this literature on language teacher cognition in its focus on: a) emotion and cognition explicitly being in a dialectical relationship in novice language teacher learning, and on par with activity; b) narrative expression in journals as a means of gaining insight into novice teachers' lived experience through the emotional lens of *perezhivanie*; c) a SCOBA to orient language teacher educators as they address the emotional content of journals, and d) a heuristic for identifying and then mediating emotion explicitly as *growth points* for cognitive development and conceptually-driven teaching practice.

2. Theoretical framework

2.1. Sociocultural theory

Within a sociocultural theoretical perspective, the development of human cognition is characterized by a *dialectical logic*, expressed through numerous foundational unities interlinking elements that have historically been treated in psychology as discrete variables to be controlled, such as mind versus body and individual versus society. A dialectical view surmounts these kinds of traditional dichotomies by viewing phenomena as existing in dynamic interrelationship with each other, as syntheses of contradictions (Vygotsky, 1978, p. 73) or opposing forces, which mutually influence and shape each other, and thus are fundamentally interdependent. Human cognition is conceptualized as originating in and being shaped by engagement in social activities, emerging on the interpsychological plane and gradually transforming to the intrapsychological plane. Central to the process of transformation, or *internalization*, is that the mind is *mediated*: humans understand and act on the world by means of psychological tools that are appropriated in the context of specific goal-oriented sociocultural activities. A learner's development depends on the quality of mediation received in response to the learner's zone of proximal development (ZPD), the difference between the level of development already obtained and the level of potential development made possible through mediation by more expert others (Vygotsky, 1978).

As a more expert other, the teacher educator should consider the quality of mediation that s/he provides to a novice teacher. Because the ZPD represents a metaphorical space of maturing cognitive functions, interactions within it are not always "enjoyable" (Chaiklin, 2003, p. 43). If a problem-solving task is beyond a learner's cognitive abilities and negative emotions emerge, the potential for learning in the ZPD is decreased (Mahn & John-Steiner, 2002). Teacher educators consequently need to consider the link between cognition and emotion to mediate. It is this "affective-volitional" dimension of thought—especially emotions—that Vygotsky (1986) considered as "the last 'why' in the analysis of thinking" (p. 252) but which he was unable to develop fully theoretically (Valsiner & van der Veer, 2000, p. 382).

Vygotsky (1994) addressed the generative capacity of emotions in the development of cognition through the concept of *perezhivanie*, lived or emotional experience. *Perezhivanie* is a unity of person and environment, achieved by the individual's subjective perception of that environment. Vygotsky (1994) details how a child's emotional experience of her/his environment influences that child's development:

> the essential factors which explain the influence of environment on the psychological development of children … are made up of their emotional experiences [*perezhivanija*]. The emotional experience [*perezhivanie*] arising from any situation or from any aspect of his environment, determines what kind of influence this situation or this environment will have on the child.

Therefore, it is not any of the factors in themselves (if taken without reference to the child) which determines how they will influence the future course of his development, but the same factors refracted through the prism of the child's emotional experience [*perezhivanie*] (pp. 339–340).

Learners perceive experiences in a new environment through the prism of *perezhivanie*, a cognitive and emotional reciprocal processing of previous and new experience. How a person perceives a previous experience influences how s/he perceives an in-progress experience, and this perception subsequently influences how s/he perceives, or reinterprets, that previous experience. This reciprocal processing regenerates with each new experience. *Perezhivanie* can be further clarified through the dialectics between the *meaning* and *sense* of words. Whereas *meaning* can be likened to the conventional understanding of a word, *sense* is personal and dynamic, "the aggregate of all psychological facts that arise in our consciousness as a result of the word" (Vygotsky, 1987, p. 276). It is through *sense* that a learner interprets her/his lived experience, and thus how a learner perceives the *sense* of a situation, a new lived experience [*perezhivanie*], is crucial to her/his development. For example, two teachers may have diametrically opposed *senses* of journal writing: one, given positive experiences with journal writing, as a sense-making process in her learning-to-teach experience; another, given negative experiences with journal writing and state mandated reforms in elementary and secondary schools, as a mechanical activity in which she tries to identify what the teacher wants (Golombek, 2011). Although journal writing has a conventional *meaning*, upon which these teachers would most likely agree, each teacher's *sense* of journal writing differs given her unique *perezhivanie*.

A teacher educator acquiring some understanding of a teacher learner's *perezhivanie* and *sense* is necessary if s/he is to mediate that teacher learner responsively. Learners writing reflective journals are a constructive medium through which a teacher can develop awareness of a student's *perezhivanie* (Mahn & John-Steiner, 2002). Through the descriptions, evaluations, and stories voiced by a beginning teacher in a reflection journal, a teacher educator can begin to apprehend both the teacher's cognitive abilities and emotional condition. Because negative emotion can minimize the potentiality of the ZPD for a learner's growth, the teacher educator's mediational response in a journal can support a learner in regulating emotion and developing competence (Mahn & John-Steiner, 2002).

Another dialectic present in teacher learning makes a compelling case for mediating novice teachers' emotions in relation to associated cognition and activity—*spontaneous* and *scientific concepts* (Vygotsky, 1987). Because the initial teaching experiences of teacher learners are often largely controlled by *spontaneous concepts* (Vygotsky, 1987) about teaching—knowledge based on what they have previously observed and experienced as students—the developmental aim of teacher education programs, in Vygotskian terms, is to support novice teachers' formation of *scientific concepts*, knowledge based on systematic observations and theoretical investigation. Novice teachers interact with *scientific concepts* through *spontaneous concepts*, and conversely *spontaneous* through *scientific*, in order to move beyond the limitations of their *apprenticeship of observation* (Lortie, 1975). When novice teachers begin to use *scientific concepts* as psychological tools, or *thinking in concepts* (Karpov, 2003), they can problem-solve the particulars of their own instructional contexts and begin to transform their instructional activity. They are becoming self-regulated, or having voluntary control, over emotional and cognitive processes, and the creation of connected instructional activity.

For this research, how language teacher learners express their *perezhivanie* and *sense* through their journals is a key source of data

for teacher educators in understanding the individual novice teacher's developmental process, and in conceptualizing appropriate mediation in response. If novice teachers' emotions overwhelm them, they will be other-regulated by their emotions, and may struggle in their teaching and their development as teachers. The dialogic interactions that occur through the reflection journals thus support the teacher educator's responsive mediation of novice teachers' cognition and emotion, acting as a kind of other regulation in social interaction that assists a novice teacher in becoming self-regulated.

2.2. Emotion as signifier: Peirce's index

The SCOBA also draws from Peirce's (1894/1998) semiotic theory—in particular, the notion of *indexicality*—to describe the nature of the signifying function of emotions in the process of mental development. For Vygotsky, language was the decisive factor in the process of mediating the development of higher psychological functions, and the unit of analysis. Peirce's semiotic theory enhances the SCOBA theoretically because of the importance that both he and Vygotsky attributed to language in sense-making processes. Specifically, Peirce (1894/1998) classified signs into three types: while *iconic* signs are similar to what they represent (*e.g.*, a picture of a tomato resembles an actual tomato), and *symbolic* signs are arbitrary in relation to their objects (*e.g.*, a tomato can be called *tomaat, pomidor, kamatis*), *indexical* signs function by 'pointing to' something near or 'contiguous' to the sign (*e.g.*, 'I' points to the speaker in a given context, 'that tomato' points to a particular, contextually-identifiable tomato; smoke indexes fire). In order to infer what the index represents, a person must have the requisite social, historical, cultural, and experiential knowledge.

The concept of the *index* has particular value for construing the role of emotions as one of signaling, or pointing to, areas of nascent cognitive development in the teacher learner. Simply put, when a teacher expresses an emotion, the message of that underlying response is an indexical 'look here, pay attention to this' relative to some area of cognitive understanding. In the case of positive emotions, these serve to index *cognitive congruence*—a match between the ideal (desired outcomes or internal conception of what teaching should be) and the real (actual activity). When a teacher succeeds in meeting instructional objectives for a classroom activity, for example, by asking questions that elicit students' critical thinking and meaningful interaction in the language being learned, the teacher is likely to experience positive feelings of satisfaction. Conversely, when a contradiction exists between the ideal and real, negative emotions are likely to arise, indexing *cognitive dissonance* that calls for further exploration, and problem solving. The teacher's ideal may be for authentic communication to occur in the language class, only to find that s/he has prevented this because s/he unwittingly asked only display questions. As a result, s/he may feel dissatisfaction, anger at her/his students' silence, or other unsettling emotions. These negative emotions can be viewed as compromising individual's development within the ZPD (Mahn & John-Steiner, 2002). Within this view, emotional responses to teaching are considered to have indexical value, as signals both to areas of positive growth—when teaching activity leads to desired/ideal outcomes—and to growth points, or areas where further development is necessary—when classroom behavior falls short of expectations.

2.3. SCOBA unifying language teacher emotion, cognition, and activity

The SCOBA presented attempts to extend Vygotsky's preliminary thinking about emotion so that language teacher educators might conceptualize a functional role for the emotions that novice teachers express. Emotion is neither seen as subservient to cognition nor as a "state within a state" (Vygotsky, 1987, p. 333). Emotion, like cognition, originates in social activity and is fundamentally shaped by activity. That is, novice teacher emotion emerges in and is shaped by interactions with students and also emerges in and is shaped by interactions with the teacher educator in the reflection journals (Fig. 1).

Emotion, cognition, and activity continuously interact and influence each other, on both conscious and unconscious levels, as teachers plan, enact, and reflect on their teaching. As novice teachers move from *spontaneous concepts* to integrating *scientific concepts* in situated teaching activity in language classrooms, they are likely to experience contradictions between old and new ways of understanding what teaching is, and what they want to happen in a classroom versus what actually happens. Such challenges and contradictions—and the emotional dissonance they generate—are central to the developmental process, as novice teachers assume new roles, identities, and concepts that can be initially destabilizing. By conceiving of these phenomena dialectically, the language teacher educator can identify emotional dissonance that points to areas of teacher thinking and doing that need to be responsively mediated to create cognitive congruence. Novice teacher emotions are thus normalized, and can be addressed in terms of what they reveal about a teacher's conception of teaching and the instructional practices implemented with a particular group of students.

Although the objective of the dialogic interactions that occur through reflection journals may be to assist a teacher in overcoming emotional dissonance, novice teacher experiencing of cognitive congruence will not happen automatically or straightforwardly. Vygotsky (1987) characterized development as a "twisting path" (p. 156), so the SCOBA suggests that iterations of journal writing (and other forms of mediational interactions and activities) to open up teachers' emotional and cognitive struggles to social influence will be necessary. Beginning teachers' growth points evolve as teachers develop new understandings and try to (re)contextualize them in alternative instructional activities. With these changes, teacher educators need to remain attuned to teacher learners' emerging emotional, cognitive, and practical needs and calibrate their mediation accordingly.

3. Research methods

3.1. The internship and reflection journals

The Internship is the capstone course of an undergraduate Teaching English as a Second Language (TESL) certificate program at a large public university in the southeast United States that includes five core courses: Introduction to Linguistics; Second Language Acquisition; Introduction to TESL; Modern English Structure
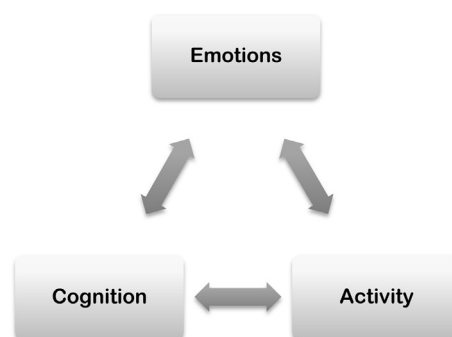
Fig. 1. SCOBA unifying language teacher emotion, cognition, and activity.

(pedagogical grammar); and Pronunciation and TESL. Typically, approximately half of the interns teach abroad upon graduation. The teaching context for the Internship is a free, eight-week course for international visiting scholars at the university. Scholars may be here as post-MA students doing professional training, PhD students studying abroad, post-doctoral fellows, or professors collaborating in research projects. Their proficiency levels vary from beginning to advanced, and they voluntarily choose to participate in the classes. The interns co-designed and co-taught their courses, spending the first six weeks in varied activities, such as reflecting on their experiences as learners and beliefs about teaching; reading about curriculum development and genre-based approaches to language teaching; and designing their courses. Once they began teaching, they participated in an assortment of mediated activities: writing journals, being videotaped and participating in a video protocol, meeting weekly with the other interns and the teacher educator, reading articles connected to their teaching focus, and writing several versions of teaching philosophies. The reflection journals were a course requirement but were not graded. The syllabus highlighted that the role of journals was to get the teachers to describe what was happening in their classes, how they assessed and felt about what was happening and the reasoning behind their assessments in order to assist the teacher educator in knowing how to respond to each intern.

The teacher learners were asked to write a journal each week and email it to the teacher educator, who replied to mediate their thinking and feeling about this initial teaching experience, and to encourage reflection and dialog. The teacher educator gave the topic for the first journal, written before actual teaching began, in order to capture what interns considered their expectations of the internship and their strengths and concerns as they embarked on their teaching experience. In subsequent journals, the interns wrote descriptions of what they were doing in their classes, and their reactions to their teaching. The teacher educator responded to all journal entries directly in the documents, and the teacher educator's comments in the results section can be identified as being in italics.

3.2. Data collection

To ensure that the interns were not coerced to participate, the teacher educator contacted them after grades were assigned for the internship, a requirement of the Institutional Review Board at the university. She explained the study, inquiring if their journals could be analyzed for the study. Eleven interns (three males and eight females) of the fourteen agreed to participate, and six females agreed to follow-up interviews. The participants chose their pseudonyms to protect their identity.

The data for the heuristic for identifying emotive content in novice language teacher journals included the reflection journal entries written by the interns who had agreed to participate in the study during the teaching internship. All of the participants had had the teacher educator (first author) as a professor for at least one course prior to the internship, providing a starting point for the teacher educator to gain insight into each intern's *perezhivanie*.

3.3. Data analysis

The journals of each of eleven teacher learners were analyzed as part of the process of conceptualizing the SCOBA and heuristic detailed in this paper. The purpose of the data analysis was first to identify the forms of emotive content present in teacher learners' journals and then to examine the extent to which the emotional content of teacher narratives appeared to index areas of cognitive dissonance and cognitive congruence that suggested growth points

for these novice teachers. The objective was to identify language, the unit of analysis (Vygotsky, 1978), representing both positive and negative emotions in the data because teachers' negative and positive appraisals both reveal aspects of teacher thinking and activity. Following Imai (2010), we guide our analysis with the assumption that emotional content is evident across varied levels of language, from lexicon to discourse.

Using the discourse analytic principles of grounded content analysis (Bogdan & Biklen, 2007), the data was first analyzed to identify and categorize emotive content. After developing the heuristic described below, we interpreted, using a sociocultural theoretical perspective, instances of emotional and cognitive dissonance (Childs, 2011; Golombek & Johnson, 2004; Kubanyiova, 2012; Reis, 2011) as potential growth points, as well as the teacher educator's mediational response.

3.3.1. Heuristic for identifying emotional content

On the basis of our analysis of the journals from that semester, we propose the following heuristic for examining teachers' written narratives for emotive content and provide some examples for clarification.

1) Affectively charged lexis indicating stance, sometimes with hedges or intensifiers: Nouns: for example, *(a bit of, a lot of) anxiety, fear, frustration, problem, excitement*; Adjectives: *gnawing* feeling, biggest *fears, a nice surprise*
2) Epistemic adjectives that convey emotion, sometimes with a hedging or intensifying adverb + that clause: I am *(totally) excited that; I am nervous; I am worried*
3) Stative verbs that convey emotion or attitude about the proposition contained in the main sentence element: I *want*, I *feel*,
4) Juxtapositions of negative appraisals with positive appraisals, either implicit or explicit: *I am excited but also afraid*; *I am concerned, but we'll all work together to help each other.*
5) Expressions of idealized beliefs and goals, sometimes juxtaposed with a polar opposite, or mismatches between the ideal and the real: achieving *perfection* in the classroom; *perfection* versus *failure*
6) Explicit calls for validation/help through questions: *What should I do?*; *What if the students don't like me?*; *What if they already understand the things we're going to be teaching?*
7) Explicit calls for validation or help from others (students, teacher educator): *I want to hear what works from my students*; *Help me!; I'm constantly craving feedback from my students*
8) Implicit calls for help/validation from others: *I just feel that what I'm doing could be improved, but I'm not sure how.*
9) Metaphors (representing conceptual understandings): *It'll be interesting to see how the dynamics play out*; *Our group meeting/ therapy session; I can only move forward*

Because we have analyzed narrative data in the reflection journals, we present our characterization of the emotive content in a holistic way and are not suggesting that these are discrete categories or an exhaustive categorization of emotional content. We encourage others to use, revise, and expand this heuristic.

3.4. The focal participant

Josie was typical of many students in the internship—an honors student in high school who chose the flagship university of the state for its academic reputation and economic value. A graduating senior majoring in Anthropology, she spent her junior year abroad in Germany and took a rigorous academic schedule. Josie was interested in social justice issues, volunteering at a Latina community organization for women for example, and the teacher

educator introduced her to critical pedagogy during their frequent chats about school and life issues. Josie and the teacher educator had known each other for 1 ½ years when the internship began. She attended the required course on "Pronunciation and TESL" previously with the teacher educator and was taking the course in pedagogical grammar with her during the same semester as the internship. Josie and the teacher educator had a solid personal relationship and interacted frequently. Through these interactions, the teacher educator noticed the *perezhivanie* prism through which Josie understood some of her experiences as she talked about herself: She had a tendency to have high, sometimes unrealistic, expectations of herself in her academic life.

Josie had originally planned for her internship site to be at the Latina community organization. However, when the course was canceled due to low student turnout, she decided to teach a section of an academic writing course being developed by two other interns. Josie thus would have access to a general syllabus and some lesson plans for the course, as she was to begin teaching the following week.

4. Results

At the beginning of the internship, Josie expressed that academic writing instruction should be meaningful and relevant to English language learners, but she had not yet developed a sense of how to realize such instruction in concrete teaching practices. Josie carried out a process of *feeling-for-thinking*,[2] in which her emotional expression, her lack of confidence in her abilities as a teacher of academic writing for English as a second language (ESL) students, indexes areas of cognitive dissonance. We present our characterization of Josie within the SCOBA in Fig. 2.

4.1. Emotional content that indexes a potential growth point: legitimacy as a teacher

In her first journal, Josie evaluates her strengths as being "flexible" and "willing to work in any environment, with any level of students", and with "whatever resources" are available. She needs to call on these strengths straightaway because the cancellation of her community education course results in her having to prepare to teach a new course just days before it was to begin. This situation, typical of many English language learning teaching contexts, elicited excitement and apprehension in Josie:

Excerpt 1

I'm really excited about the course of the class, even though the three of us [J and the two teachers of the other section of the course] are, admittedly just taking it one day at a time. We have a good general idea of the structure/curriculum units we want to follow, we just don't have a set course for how long each topic will take. I know a lot of this depends on the students' feedback and understanding; **I don't want** to just move too fast and leave anyone not understanding a concept.

This may happen. You don't always bring ALL students along with you. It's a noble goal that you have but difficult to achieve. You need to set realistic expectations for yourself or you'll set yourself up for failure. **I also don't want** to move too slowly and have everyone thinking the lessons aren't useful to them. **What if they already understand the things we're going to be teaching? What if they don't think it's helpful? What if they feel like what we're**
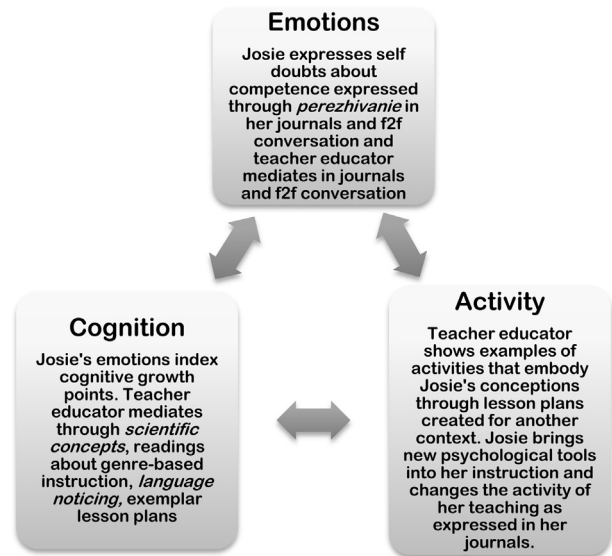
[2] We credit Slobin's (1996) concept of *thinking-for-speaking* for shaping the development of our idea of *feeling-for-thinking*.

Fig. 2. Characterization of Josie within the SCOBA.

teaching isn't what they signed up for, or what they expected to get from the class.

ASK THEM. This is good teaching!! Find out how and what they are understanding. Send an email to each of them individually. Ask them in class, before or after, OR do an in class kind of thing. Hand out scrap paper and ask them a question or two. What do you still not understand from class? What would you like more of in class? Don't keep yourself guessing!!!! (Journal 1)

Josie's positive appraisal of her situation, being "really excited about the course" is accompanied by some insecurity about what she and the other two teachers have planned for the course content. Although she is trying to be responsive to these students' needs, a connection to her concept that teaching be relevant and meaningful, Josie expresses concern about moving too fast because she does not want to "leave anyone not understanding a concept".

The teacher educator initially provides emotional support by using her expertise to ground Josie, as a novice teacher, in more realistic expectations of the relationship between teachers' instructional practices and students' responsibility in engaging in those practices and their learning. The teacher educator, speculating that Josie is perceiving this new experience of first-time teaching refracted through her *perezhivanie* of exceptionally high self-standards, recognizes her expectations for mastery of concepts by all students as "noble", but cautions "you'll set yourself up for failure" if Josie does not have realistic expectations of herself. Some teacher educators may argue that this mediation is unsound, leaving the impression that it is acceptable to neglect certain students. Indeed, this data excerpt points to the challenges of fashioning and enacting responsive, emergent mediation. Human communication is imperfect, and even a committed teacher educator may provide ill-chosen mediation at times. Still, the teacher educator may have deemed this comment as fitting to ground Josie's expectations given her *perezhivanie* of perfectionism and its categorical nature. In addition, the teacher educator knows from experience that these students' voluntary participation and exceptionally busy schedules often result in several students attending irregularly or even dropping out.

Josie's positive feelings are tempered through a series of highly emotional "what if" questions, anticipating problematic scenarios

of student disappointment with her and the course curriculum. These questions represent both 'cognitive' and 'communicative' acts (DiCamilla & Lantolf, 1994, p. 353) that interact, producing emotional content indexing cognitive dissonance. As a cognitive act, the structure of these hypothetical questions reflects an absence of certainty or confidence characteristic of many novice teachers lacking robust conceptualizations of teaching. Rather than being able to see how her instruction could play out on the intra-psychological plane, Josie imagines worst case scenarios resulting in unsatisfied students who question the value of her instruction. As a communicative act, Josie's questions also represent a call for assistance from an expert *other* to help her develop instructional practices to avoid such results, as well as garner reassurance from the teacher educator. The teacher educator does so by advising her unequivocally to find out how students are experiencing her instruction, emphasizing in capital letters to "ask them". In fact, she mediates by putting forth a number of modes through which Josie could obtain this information—through individual email communication, face-to-face communication before or after class, and classroom activity. She details specific questions that Josie could ask her students in the classroom activity. She again grounds Josie's expectations, suggesting that a teacher cannot magically know everything. By emphatically advising "Don't keep yourself guessing!!!!", the teacher educator attempts to shift Josie from emotional speculation to concrete actions she can take.

Josie continues to express her insecurity about teaching:

Excerpt 2

Part of me is still regularly convincing myself I am qualified enough to do this, but sitting in a room with post-doc stem-cell scientists and surgeons at least five years my senior **is still pretty intimidating. I want them to like me, but more than that I want to be a good teacher, and teach them things about English and writing in their field they otherwise would not have known**.

You are NOT going to be the teacher you dream of being. But you can have a great start to becoming the teacher you want to be. Again, you have to have realistic expectations of yourself. You know English and know a lot about writing. YOU know this. You can convey this. AND they almost never get a chance to get anyone to read their English and provide feedback. This is a dream for them. Don't cut yourself short. You are providing them with something they want, need, and rarely receive—information/understanding on writing concepts and feedback!! (Journal 1)

Josie doubts her qualifications to be teaching Visiting Scholars by "still regularly convincing" herself that she is qualified, highlighting the ongoing nature of her talking herself into some level of credibility. She follows her expression of self-doubt with two "I want" statements. She wants the students to like her, another indication of being other-regulated by her students' approval. And she wants to be "a good teacher", her preliminary explanation of this being she wants to teach them "about English and writing in their field they otherwise would not have known".

Josie's self-doubts are mediated again by the teacher educator's attempt to coach her into having more realistic expectations of herself: She will not become the teacher she hopes to become in one semester of teaching, but can begin the journey of "becoming the teacher" she wants to be, highlighting the developmental nature of teaching (Freeman, 1991, 1993; Johnson, 1994). The teacher educator affirms Josie's abilities by emphasizing that she knows a great deal about English and writing, emphasizing "YOU know this". The teacher educator expresses her belief that Josie has the abilities to convey her understanding of writing, and how ripe the

situation is for her to provide the students with something valuable. She counters Josie's negative feeling by affirming her knowledge of academic writing and advising her not to "cut herself short" as she can provide personalized feedback through her instructional activities.

By reading Josie's teaching journals, the teacher educator learned much about Josie's *perezhivanie*, or how she perceived her experience as a first-time teacher. The emotional content of her journal pointed to emotional and cognitive dissonance. That is, Josie feels anxiety about her teaching abilities and limited knowledge in relation to these highly educated students, as well as a dearth of instructional practices that would align with her emerging conceptions of teaching academic writing. Josie's anxiety about her legitimacy as a teacher, expressed several times, in these excerpts, indexed a growth point that the teacher educator could address, promoting a kind of feeling-for-thinking. Although the teacher educator validates what Josie was feeling as she experienced her teaching, only mediating her emotional response is clearly insufficient to enhance her conceptions and activity of teaching.

4.2. Mediating the growth point

In a face-to-face meeting, the teacher educator suggested an instructional focus for Josie's class given their proficiency level, their real-world communication needs, and the limited eight-week time frame. She suggested the instructional focus of cohesion as a way to bring together a number of features of writing, such as varied sentence structure, discourse markers, parallelism, subject repetition through various forms, and nominalization, as a way to also meet Josie's desire to execute relevant and meaningful instruction, while exposing them to new ideas about writing. The teacher educator gave lesson plans on cohesion that she had designed for a dissertation writing course to Josie to look over, ask questions about, and revise according to her understanding of her students and their writing. This provided a concrete example of how to present concepts related to cohesion and of activities that would engage students in building their conceptual knowledge. It also provided activities in which students revised their own papers, thereby demonstrating how Josie's conception of relevant and meaningful instruction could be materialized in practical activity.

The course materials also embodied a discourse-based approach to which the teacher educator had introduced Josie in the pedagogical grammar course, highlighting the *scientific concept* of language noticing (Schmidt, 1990) and encouraging students to articulate their understandings of how particular grammatical features achieve certain communicative goals within academic writing. In this way, Josie could begin to explain how these activities reflected a particular view of teaching, one that aligned with her evolving conceptions of teaching. To further support her conception of teaching academic writing, the teacher educator encouraged Josie to read materials posted on the course website on another concept, genre-based writing instruction, such as Paltridge (2001) and Hyland (2007).

A couple of weeks after Josie wrote journal 2 and the teacher educator had mediated her understanding of teaching academic writing explicitly, Josie began to detail and evaluate activities she had done based on the idea of taking "structural or stylistic concepts the students have probably seen before and are vaguely familiar with, and show them explicitly how these structures are created in relation to academic writing". She evaluated as "particularly effective" one exercise in which students, using concepts she had presented previously, linked two related sentences from an academic text that showed cause-and-effect in as many ways as they could. Josie wrote:

This was really one of the first activities where I had them writing on their own and they **took off with it**; by the end of the discussion we had **over a dozen variations** on the sentences, with meanings varied across the spectrum of cause-and-effect and positive/negative relationships. **I would like to take this idea further** and use it across a whole paragraph of information. (Journal 3)

Josie evaluates this activity as successful because she witnessed student understanding of the instructional content through the sentences they constructed and their explanations of the nuanced meanings encoded in the sentences. They "took off with" the activity and offered "over a dozen variations on the sentences" with diverse meanings. She not only observed what appeared to be students' genuine engagement in the task but student understanding beyond what she had anticipated. Because of this success, she would like to take a similar approach into a new activity in which students would be challenged to apply their understandings at a discourse level. As Josie's activity changes, she begins to feel cognitive congruence as her emotion, cognition, and activity are more in alignment.

In her next journal entry, she writes about her increasing confidence in her abilities as a teacher and how this is connected to the activity of her teaching.

Now that I've started designing my own materials for my class, **I feel a lot more confident about** the lessons when I come into the class. **I also feel like I am more confident in presenting** the material and **more ready to answer questions and talk about the material**, instead of just get through it.

Yep, I can only agree. When you create it based on your own understanding of it, a lesson will be better. I'm glad you are feeling better about this. (Journal 4)

As she is designing her own materials, Josie is "more" confident about the content of the lessons as well as her ability to present the content than when she was relying on materials created by the teacher educator and the other two teachers. Because she is intimately familiar with the goals, the content, and the flow of her lessons, Josie also feels more prepared to engage in the unexpected that occurs when students express and justify their understanding of the material. This confidence coincides with enacting instructional activities that align with her developing ideas about instruction. Her emotional and cognitive control of the material seems to allow her to relinquish the need for control of the discussion in her classroom. She is experiencing cognitive congruence, validating herself in her journal, as she is becoming self-regulated in her feeling and thinking about, and doing of teaching.

The teacher educator validates the sentiment of Josie's comments by agreeing that when a teacher creates a lesson on the basis of his or her own understanding, "a lesson will be better", acknowledging the importance of goal-directed behavior in internalizing concepts and moving toward self-regulation. Whereas in earlier journals the teacher educator validated what Josie was feeling as a way to mediate her thinking and doing (excerpts 1 and 2), in this journal she validates what Josie is thinking and doing by confirming Josie's self-assessment.

Josie continues:

It's a **pretty good feeling**. I'm not exactly sure where we're going after spring break, but **I want** to keep working with student's writing and revising it to show them the cohesive and grammatical structures we've been learning. I've had **a few students recently tell me how helpful** some of the concepts we learned

are for their writing, and they've been revising their current work to consciously include concepts like the passive. That made me feel so unbelievably good (wait, did I feel surprisingly good? Isn't this what's supposed to happen?). *This is fantastic.* **I want** to keep showing them that it isn't always about what's right and wrong, or "better," but just that they have choices as writers that they don't necessarily think or know that they do. *I think I said this a paragraph ago…I definitely agree.* After going through some of the other students' paragraphs, **I want** to have a few classes where they are writing their own pieces (based on some kind of prompt) that we can then revise and rewrite in class. Instead of continuously introducing new concepts, *I agree. You don't need to keep on adding new content.* **I want** to keep reinforcing the ones we have already learned in new ways, applying them to different texts, writing styles and disciplines again and again and again so they can really see how they are used across the academic writing spectrum, not just in a vacuum of single sentences.

This is definitely the way you should go.

So I think I hear you saying that your students are actively engaged with the content you presented. They are doing activities in which they interact with the content in their own writing, construct their understandings. It's relevant to them. They SEE the value of what you're teaching in their work. This is exactly what I was encouraging you to do, and I am so glad that you are experiencing the value of this approach. Really look forward to hearing more. (Journal 4)

Josie's successful implementation of lessons that she had designed, the successful activity of her teaching, leads her to comment "It's a pretty good feeling", signaling emotional congruence. She once again uses "I want" statements, but whereas the previous ones in her first journal (excerpt 2) were focused on student approval and vague notions of "good teaching", they now detail what she wants her instruction to look like and to achieve. That is, she wants to show them "they have choices as writers that they don't necessarily think or know that they do". She wants them to revise their own papers based on the concepts she has taught and repeatedly apply them to new texts in new contexts. Whereas the previous "I want" statements indicated her need for other regulation through student approval, the current "I want" statements signify Josie's increasing self-regulation as she can now contextualize her conception of teaching academic writing in her instructional activity. Through her description of what she is doing in the class and the pedagogical reasoning behind it, she expresses her own self-validation rather than expressing a need for other validation from her students or the teacher educator.

The teacher educator's comments are more like backchannels in conversation here, expressing her agreement with, validating, Josie's conceptions and activity of teaching. In the teacher educator's final commentary, she mirrors back in more expert terms the concepts underlying Josie's thinking about and doing of teaching, such as relevance, meaningfulness, and active construction of understanding. She returns to concerns that Josie earlier voiced in her first journal (excerpt 1) about students not seeing the relevance of what she taught in class, emphasizing that students do "SEE the value of what you're teaching in their work". The teacher educator confirms that Josie has not only understood the concepts through which she mediated Josie's thinking—"this is exactly what I was encouraging you to do"—but that Josie has transformed those concepts in her teaching activity—"I am so glad you are experiencing the value of this approach".

The teacher educator identified the cognitive content to which Josie's emotional responses in her reflection journal pointed, and

then attempted to mediate this growth point by expanding her conceptions of teaching academic writing through *scientific* concepts to develop appropriate instructional responses. Josie's positive emotions, feeling confident and feeling good, index cognitive congruence, or greater alignment between her emerging conceptions of teaching academic writing and her actual teaching activity.

5. Discussion

This analysis demonstrates that emotional content, signaling both positive and negative appraisals, is pervasive in this novice teacher's journals, and that her emotions are tied to her *perezhivanie* and her thinking about and activity/outcomes of her teaching. Josie's crisis in confidence about herself as a competent ESL teacher indexed fledgling conceptions about teaching and a lack of instructional practices that aligned with those conceptions. Emotional content that indexes areas of where further cognitive/conceptual development may be needed to resolve emotional and cognitive dissonance engenders a kind of feeling-for-thinking. At its most basic, novice teachers need mediation to enable them to feel confident enough to teach. However, they cannot simply be told "Don't worry. You're going to be okay". By explicitly addressing Josie's emotions as normal and pointing to areas of cognition that needed to be developed in terms of teaching academic writing, the teacher educator first validated what Josie was feeling as normal, deciphered what her emotions indexed in terms of cognition and activity, and then sought to mediate Josie responsively.

For language teacher educators, the SCOBA highlights that teacher expression of emotion is intertwined with cognition and activity as part of the developmental process of beginning teachers (Galman, 2009; Kubanyiova, 2012), and can be addressed in mediation. Josie's case provides an example of how the dialogic interactions taking place through the reflection journals enabled the teacher educator to gain insights into Josie's *perezhivanie* and her thinking/feeling/doing of teaching, and thereby mediate a growth point. This analysis also shows how difficult enacting consistent, principled responsive mediation is because of the moral issues embedded within the student–teacher relationship and because human communication is inherently imperfect. Research and experience as teacher educators reminds us that reflection journals are not necessarily beneficial for all novice teachers (Akbari, 2007; Strand, 2006), nor does emotional dissonance necessarily lead to conceptual change (Kubanyiova, 2012) or change in instructional activity (Golombek & Johnson, 2004). *Learner reciprocity* (van Der Aalsvoort & Lidz, 2002), how learners receive mediation, is variable, and teacher educators must stay sensitive to this. Though Josie appears generally receptive to reflection journals and the mediation she received, others might not. Additionally, the teacher educator's motives and mediation should be exposed to self-assessment because mediation is being constructed in real-time within the student–teacher relationship, rooted in ethical dimensions. Various factors, such as each teacher learner's *perezhivanie* and *learner reciprocity*, the quality of teacher educator mediation in journal responses, and the uneven nature of the teacher–student relationship, shape each teacher's individual path of development. By externalizing our mediational responses in the data of novice teacher reflection journals, our mediational responses likewise become open to social influence. Our analysis suggests that we as teacher educators can hold ourselves accountable by interrogating our intentions and mediational practices, and attuning them when necessary. The iterative nature of writing and responding to reflection journals enables, even compels, teacher educators to engage in their own processes of self-reflection.

The SCOBA offers language teacher educators a systematic process for orienting to and addressing the prevalence of novice teacher emotion to encourage feeling-for-thinking. To supplement the SCOBA, teacher educators can use the language heuristic proposed to discern emotive content in reflection journals and then encourage teachers to clarify and detail the teaching conceptions and instructional practices engendered by that emotion. The writing of reflection journals across the semester enabled the teacher educator to mediate each journal entry synchronically and diachronically to explore the emotional dissonance identified, to provide appropriate mediation in response, and to calibrate mediational responses in reaction to the next round of Josie's journal responses. However, the teacher educator did not rely on journals alone to identify Josie's *perezhivanie*. Other forms of mediation are necessary, such as face-to-face interactions and peer interactions. In response, the SCOBA prompts teacher educators to be cognizant of the individualized nature of each novice teacher's *perezhivanie* and ZPD, the interaction among emotion, cognition, and activity, and the nonlinear nature of development.

Although the construct of teacher cognition appears to validate teachers as thinking professionals, this term semantically maintains distinctions between cognition and emotion, as well as activity. By labeling this construct as teacher cognition, research in language teacher education unconsciously reinforces the Cartesian dualism that privileges cognition and marginalizes emotion. The analysis emphasizes human emotion and cognition as inherently social, while the SCOBA unifies emotion, cognition, and activity in a dynamic and dialectical process without privileging any component. The unity of the SCOBA supports Kubanyiova's (2012) call to reconsider the boundaries of language teacher cognition conceptually and in research. How the SCOBA functions with other forms of teacher educator mediation and in less fruitful cases may uncover nuances in this triadic relationship as we push the boundaries of language teacher cognition.

The novice language teacher is in a vulnerable position, facing teaching for the first time knowing that she or he lacks the expertise and experiential knowledge base to teach to her or his expectations. The subsequent contradictions between what a novice teacher envisions happening in the language class and what actually happens is likely to produce an emotional response. The conceptualization of emotions as a functional component of language teacher professional development normalizes emotions as a valuable resource, rather than as a source of incompetence, to be incorporated into each teacher's professional development. Teacher educators can use their expertise to mine the inevitable emotionality of novice teachers in purposeful and systematic ways that respond to the individual concerns of each teacher. By recognizing the professional self as both a thinking and feeling actor engaged in the goal-oriented activity of teaching, the field of language teacher education can more thoughtfully support the professional growth of novice teachers.

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