Learning and Instruction 33 (2014) 158–169

Contents lists available at ScienceDirect

Learning and Instruction

journal homepage: www.elsevier.com/locate/learninstruc

Weekly self-efficacy and work stress during the teaching practicum: A mixed methods study☆

Robert M. Klassen [a, *], Tracy L. Durksen [b]

[a] Department of Education, University of York, Heslington, York YO10 5DD, UK
[b] University of Alberta, Canada

ARTICLE INFO

Article history:
Received 17 July 2013
Received in revised form
14 May 2014
Accepted 16 May 2014
Available online 12 June 2014

Keywords:
Teachers
Practicum
Self-efficacy
Stress
Mixed methods

ABSTRACT

The purpose of this longitudinal mixed methods study was to examine the development of self-efficacy and work stress of pre-service teachers during a teaching practicum. Participants were 150 pre-service teachers who completed eight weekly electronic surveys during their two-month final practicum in a Canadian teacher education program. The study investigates the patterns of self-efficacy and work stress during a critical period in the formation of new teachers. Latent growth curve analysis revealed a pattern of significantly increasing self-efficacy and significantly decreasing stress, although the trajectories were independent of each other. Qualitative analysis of multiple collective cases highlighted the variability of self-efficacy and stress patterns within the practicum experience, and underscored the critical influence of relationships with mentor teachers on self-efficacy and stress.

1. Introduction

The teaching practicum is a psychologically demanding period of professional preparation. In a compressed timeframe, pre-service teachers must juggle demands from students, mentor teachers, school administrators, and university supervisors, all in what is typically a new work environment. For most pre-service teachers, the practicum is rated as the most stressful experience during professional preparation (Chaplain, 2008). In addition to challenges posed by work demands (teaching and preparation, forming relationships with students and colleagues, and learning about school routines), pre-service teachers are also presented with a daunting developmental task: the personal transformation from student to teacher. The transformative task faced by pre-service teachers is high-stakes, with future employment opportunities tied to level of practicum success (Caires, Almeida, & Martins, 2010).

The practicum presents a uniquely condensed opportunity to study the development of teachers' work-related motivation and emotional responses. Constructs such as teachers' self-efficacy and work stress are conditional, dynamic, and reflective of environmental changes and challenges (Bandura, 2012), and are best understood using longitudinal and intra-individual research approaches (e.g., Tschannen-Moran & Woolfolk Hoy, 2007). A recent review of the teachers' self-efficacy literature (Klassen, Tze, Betts, & Gordon, 2011) revealed numerous cross-sectional studies, but few studies investigating patterns of change in teachers' self-efficacy over time, and no studies examining pre-service teachers' self-efficacy and emotional response (stress ratings) using multiple data waves.

Results from two-wave studies suggest that pre-service teachers' self-efficacy may increase during the teaching practicum (e.g., Fives, Hamman, & Olivarez, 2007; Knoblauch & Woolfolk Hoy, 2008), but longitudinal studies require three or more waves of data to reliably establish patterns of change (Singer & Willett, 2003). In the present study we use a longitudinal, intra-individual, mixed methods design to examine the developmental trajectories of 150 pre-service teachers' self-efficacy and work-related stress. We included eight measurement points across a final teaching practicum for the quantitative analyses, and examined the reasons give for the patterns of self-efficacy and stress in the qualitative analyses. We use the term *longitudinal* to capture the multiple within-person measurements, but acknowledge that many longitudinal studies include time periods of longer duration. The key contribution of this study is to provide a better

☆ Funding for this research from the Social Sciences and Humanities Research Council of Canada (Grant no. 435-2012-0296) and the Spencer Foundation (Grant no. 200900161) is gratefully acknowledged.

* Corresponding author. Tel.: +44 01904 629257.
E-mail address: robert.klassen@york.ac.uk (R.M. Klassen).

http://dx.doi.org/10.1016/j.learninstruc.2014.05.003
0959-4752/

understanding of the developmental patterns of pre-service teachers' self-efficacy and stress in response to the demands of the practicum. Understanding patterns of change will be useful for researchers and for teacher education professionals to better understand the ebbs and flow of self-efficacy and stress during an intense formative teaching experience.

1.1. Teachers' self-efficacy and stress

The practicum is an early teaching experience representing one of the critical developmental influences on novice teachers' self-efficacy beliefs (Mulholland & Wallace, 2001), and self-efficacy beliefs, once formed, are relatively resistant to change (Bandura, 1997). During the teaching practicum (known in some settings as field experience or teaching internship), pre-service teachers may experience fluctuating levels of professional identity and self-efficacy, paired with substantial distress, changes in eating and sleeping patterns, and high levels of emotional vulnerability associated with fatigue and heavy workloads (Caires et al., 2010). Patterns set in the pre-service teaching practicum powerfully influence how motivation and emotional responses develop during the early years of practice (Woolfolk Hoy & Burke Spero, 2005), and thus are important to understand.

The current research is situated in a theoretical framework based in social cognitive theory, whereby self-efficacy—beliefs in one's capabilities to carry out the courses of action needed for desired outcomes (Bandura, 1997)—plays a critical role in the management of the self-system during challenging life experiences. According to Bandura, self-efficacy is formed from four sources: enactive experience, vicarious experience, verbal persuasion, and affective interpretation of physiological state. Meeting the challenges of novel vocational experiences is a developmental process that draws on a person's sense of self-efficacy: "when fulfilling new occupational role requirements, adaptation is a … complex process of self-development" (Bandura, 1997, p. 30). For pre-service teachers, the challenge of adapting to the realities of teaching in the compressed timeframe of the practicum represents a challenging and dynamic opportunity for self-development that is influenced by levels of teaching-related self-efficacy and stress.

In the Job Demands–Resources model (Hakanen, Bakker, & Schaufeli, 2006), work stress occurs when job demands are perceived to outstrip personal and job resources. According to Hakanen et al., job demands are *givens*, and inherent to the job context, whereas resources are *alterables*, and subject to intervention. Job demands include the aspects of the job that place psychological (cognitive or emotional) demands on the teacher, and include disruptive pupils, workload, and poor quality work environments. Job resources can improve capacity to manage job demands over time, and can lead to greater engagement. Job resources include job control, access to information, school climate, and, importantly for pre-service teachers, supervisory, that is, mentor teacher support. Mentor teachers are perceived to be one of the key sources of support for novice teachers, with mentor teachers providing practical advice about teaching and the role of the teacher, and with quality mentoring resulting in enhanced self-efficacy (Richter et al., 2013).

Previous studies have shown that novice teachers' motivation and emotions can change rapidly over brief time periods (e.g., Bakker & Bal, 2010). There are at least three reasons why the practicum may result in fluctuating self-efficacy and stress. First, pre-service teachers typically assume increasing teaching responsibilities as the practicum unfolds, thereby building self-efficacy through successful experiences, or lowering it through failure experiences. Levels of stress may increase with additional responsibilities, or decrease with growing familiarity within the teaching environment. Second, the teaching practicum is a microcosm of a practicing teachers' academic year, with beginning and end points, consisting of relationships with students quickly being established and heightened levels of supervision and evaluation. Finally, the practicum is a high-stakes experience for pre-service teachers, with successful navigation of the experience enhancing employment prospects, but unsuccessful navigation resulting in restricted access to teaching jobs in some settings (Caires et al., 2010). We designed a study that traces the general patterns of self-efficacy and stress using latent growth-curve modeling and that probes specific experiences using qualitative analysis of participants' open-ended responses.

1.1.1. Self-efficacy: patterns of change over time

Research into the patterns of teachers' self-efficacy have shown mixed results, with some research showing modest change over time (Brouwers & Tomic, 2000), whereas other studies show that self-efficacy increases during teacher training (Knoblauch & Woolfolk Hoy, 2008; Woolfolk Hoy & Burke Spero, 2005), and specifically during the teaching practicum (Fives et al., 2007). Overall, the results from previous studies suggest that teacher self-efficacy increases during the practicum, but previous studies have used only two time points, and thus the patterns of efficacy change during the practicum cannot be adequately described since patterns of change can only be firmly established with three or more measurement periods (Singer & Willett, 2003).

1.1.2. Teachers' stress and coping

Teaching is usually considered a high stress occupation; in fact, it was ranked as the second most stressful of 26 occupations (Johnson et al., 2005), with higher occupational stress than prison or police work. Teacher stress—defined as the experience of negative emotions resulting from a teacher's work (Kyriacou, 2001)—has been shown to be inversely related to self-efficacy (e.g., Skaalvik & Skaalvik, 2007). For pre-service teachers, the practicum is typically the most stressful component of teacher training (Kyriacou & Stephens, 1999). Three factors strongly influence pre-service teachers' stress during the practicum: behavior management, workload, and a lack of support from mentors, teachers, and administrators (Chaplain, 2008). Stress from teaching may be universal, but the psychological reactions to stress depend on available personal and environmental resources. For example, disruptive students may result in negative emotions (stress) for all teachers, but stress coping mechanisms influence the psychological and physiological outcomes that result from negative emotions.

Stress in teaching has been inversely linked with commitment to the teaching profession (e.g., Hakanen et al., 2006; Jepson & Forrest, 2006). According to transactional models of stress and coping (e.g., Lazarus & Folkman, 1984), a person facing a stressful situation first evaluates the significance of the stressor (primary appraisal), next evaluates the controllability of the stressor against potential coping resources (secondary appraisal), and lastly implements coping strategies designed to mediate stress outcomes. Stress from teaching is mediated through the social and emotional support provided by others, and by teachers' beliefs in their capability to regulate negative mood and stressors (Mearns & Cain, 2003). Studying the development of stress and coping during the practicum may provide insight into how pre-service teachers experience this intense period and may help program designers understand how stress changes during the practicum, and the coping mechanisms that are used to cope with the practicum-related stress.

1.1.3. The relationship between self-efficacy and stress

According to social cognitive theory, feelings of stress result from low self-efficacy to manage environmental demands,