WORK IN PROGRESS REPORT

Examining Well-Being in School Context: Weekly Experiences of Pupils and Teachers

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The present study investigates the determinants and intercorrelations between teachers’ and pupils’ well-being and motivation in the school context. Based on self-determination theory and job demands-resources theory, we hypothesize that (a) teachers’ weekly self-concordant work motivation promotes teachers’ weekly work-related well-being (i.e. work-related positive affect and work engagement), and (b) that a crossover effect of teachers’ weekly work-related well-being on pupils’ weekly school-related well-being exists, while controlling for trait-level teachers’ antecedents of trait-level teachers’ work-related well-being: job demands and job resources. A quantitative weekly diary methodology is employed. Participants are primary school pupils and their teachers from six European countries.

Keywords: teachers’ work-related well-being; self-concordant motivation for work; pupils’ well-being; diary study

Editor’s Note

This work in progress report (WiP) was developed by the 2013–2014 cohort of the Junior Researcher Programme (JRP), a service supported by the European Federation of Psychology Students’ Associations (EFPSA). During the course of the JRP calendar, the six research groups that are initiated via the European Summer School submit the WiPs of their research to the Journal of European Psychology Students (JEPS). The WiPs are short methodology papers that outline steps undertaken by research groups in developing and carrying out a research project in the context of low-resource, independent, student-driven, cross-cultural research. The WiPs are submitted prior to project completion to enable the authors to improve their research according to the comments resulting from the peer-review process. WiPs also support the dissemination of methods used by student-driven, independent research projects, with the hope of informing others carrying out such work.

The 2013–2014 cohort was inducted into the JRP at the European Summer School 2013, held in Voeren, Belgium.

Introduction

Teachers often encounter high demands at work, such as work overload, intense interactions with pupils, colleagues and parents, all of which represent risk factors for teachers’ work-related well-being (Hakanen, Bakker, & Schaufeli, 2006). Nonetheless, many teachers still feel satisfied and happy in their work (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). These somewhat contradictory findings require more fine-grained investigation as further understanding is needed on the more proximal factors that foster well-being in schools, not only for individual teachers, but also for the pupils they work with.

Specifically, affective experiences of teachers can cross-over to the pupils they work with (Bakker, 2005). Cross-over refers to interpersonal transmission of affective states experienced by one person to another person in the same social environment (Bolger, DeLongis, Kessler, & Wethington, 1989). Many studies have demonstrated a crossover effect for psychological strains in work settings (Bakker & Schaufeli, 2000; Westman, 2001). However, crossover of positive experiences from teacher to pupils is still understudied, particularly on a within-person level.

Building upon the self-determination theory (SDT; Gagné & Deci, 2005) and the job demands-resources theory (JD-R; Bakker & Demerouti, 2014), the main purpose of the current study is twofold. First, we aim to examine whether teachers’ weekly self-concordant motivation for work — the degree to which motivation for putting effort into work has been internalized, without feelings of internal or external pressure (Gagné & Deci, 2005) — is a
significant antecedent of their weekly work-related well-being beyond their general experiences of job demands and job resources. Second, we aim to investigate to what extent teachers’ weekly work-related well-being may crossover to their pupils. The present study focuses on weekly fluctuations in well-being, particularly, because recent research has demonstrated that work-related well-being fluctuates substantially on a within-person level, and that these fluctuations predict important personal and organizational outcomes (Breevaart, Bakker, Demerouti, & Hetland, 2012; Xanthopoulou, Bakker, & Ilies, 2012). Although the effects of work-related well-being have been analyzed before (e.g. Bakker, Demerouti, & Sanz-Vergel, 2014), this is the first study to examine the crossover effects of well-being from teachers to their pupils on a weekly basis.

Theoretical Background
Teachers’ work-related well-being. The present study focuses on weekly positive affect and work engagement as indicators of teachers’ weekly affective work well-being (Bakker & Oerlemans, 2010). Weekly work-related positive affect encompasses transient positive emotional states (e.g. inspired, happy, and satisfied) that are felt in different degrees during different work weeks (Diener et al., 2010), whilst weekly work engagement refers to a positive, fulfilling, work-related emotional response state consisting of vigor (high levels of resilience, persistence, and investment in work), dedication (experiences of enthusiasm, achievement, and challenge), and absorption (difficulties in removing oneself from one’s work) experienced during a work week (Breevaart et al., 2012).

The job demands-resources theory. The JD-R theory (Bakker & Demerouti, 2014) posits that work-related well-being results from an interplay between effortful and motivating job conditions: Whilst job resources foster development and goal achievement, job demands require considerable efforts and skills, which can result in exhaustion and strain. Indeed, teachers’ burnout has been positively related to the job demands they experience, whereas teachers’ work engagement has been positively related to the availability of job resources (e.g. Bakker et al., 2007). In order to gain a greater understanding on the role of weekly work motivation for teachers’ weekly work-related well-being, in the present study, we control for teachers’ trait-level job demands and resources.

Teachers’ self-concordant motivation for work. Teachers’ motivation for work might be vital when considering pupils’ school-related experiences (Roth, Assor, Kanat-Maymon, & Kaplan, 2007). For example, Bakker (2005) demonstrated that teachers’ intrinsic work motivation was related to flow experienced by their students. However, a large majority of previous studies used a cross-sectional design. Thus, the present study aims to add to the existing literature by examining teachers’ self-concordant work motivation as an antecedent of work-related well-being longitudinally. Specifically, we expect that teachers who perceive their job as an expression of their inner needs and values are more likely to teach with genuine interest, leading to an increase in work-related well-being. In the case of a crossover effect, it is expected that this increased work-related well-being will result in increases in pupils’ school-related well-being.

Pupils’ school-related well-being. In the current study, we refer to pupils’ school-related well-being as the degree to which pupils feel positive affect and have positive attitudes and experiences in school on a weekly basis (Ivens, 2007). In line with the theoretical notions and previous findings on crossover effects (Westman, 2001), we expect that teachers’ interpersonal processes, namely their work motivation and well-being, can affect the pupils they work with. Exact mechanisms that allow for the crossover effect to occur are unknown, but potential mechanisms could include empathy, as closely related individuals affect each other’s emotional states; sharing similar resources and stressors, and, the interaction between teachers and pupils (Westman, 2006).

The present study
The main purpose of the current study is to add to the existing literature by (a) examining teachers’ weekly self-concordant work motivation as a more proximal factor that promotes teachers’ weekly work-related well-being (i.e. positive affect and work engagement), and (b) investigating the crossover effect of teachers’ weekly work-related well-being on pupils’ weekly school-related well-being, while controlling for trait-level teachers’ antecedents of trait-level teachers’ work-related well-being: job demands and job resources. In this way, the study aims to provide an empirical foundation for developing interventions focused on creating school contexts that foster well-being for both teachers and pupils.

Based on the theoretical reasoning above, we advance the following main hypotheses:

Hypothesis 1. Teachers’ weekly self-concordant work motivation is positively associated with their weekly work-related positive affect and work engagement. In other words, on weeks when teachers experience higher self-concordant work motivation, they will also experience higher positive affect and work engagement.

Hypothesis 2. There is a crossover effect of well-being from teachers to pupils on a weekly basis: The more work-related positive affect and work engagement teachers experience in a given week, the more school-related well-being their pupils will report in that particular week.

Method
Participants
This study will involve at least 60 teachers from primary public schools from six European countries (Ireland, Romania, Slovenia, Spain, Switzerland, and Turkey). We aim to reach a sample of minimum 10 teachers per country (in order to control for potential country effects), and approximately 1200 10-year-old pupils (an average of 20 pupils per teacher).

Design
In order to examine the weekly fluctuations in teachers’ well-being and their effects on pupils, we will employ a quantitative weekly diary methodology and follow
teachers and their pupils for three consecutive working weeks. Each of the weekly questionnaires will assess teachers’ and pupil’s weekly school-related experiences. In the first week of data collection, teachers will first complete a background questionnaire assessing teachers’ sociodemographic information and job-related variables at a trait-level. Once completed, they will fill out their first weekly questionnaire for that specific week. Pupils will also fill out a basic demographics measure and a weekly well-being questionnaire. In the second and third week, both teachers and pupils will fill out only weekly questionnaires. In order to achieve high external validity of results, the assessments will be conducted in six different countries. In line with previous research (e.g. Llorens, Bakker, Schaufeli, & Salanova, 2006), we expect that our findings will be invariant across the different national samples.

Measures
The measures in the present study have been previously validated and are widely used (Mills, Culbertson, & Fullagar, 2012). For instance, studies have shown an invariant internal factorial structure across populations for the Utrecht Work Engagement Scale (UWES) (Schaufeli, Bakker & Salanova, 2006), and the internal factorial structure of the Scale of Positive and Negative Experiences (SPANE) (Silva & Caetano, 2011; Sumi, 2013). Where possible, we included the translated and adapted versions (in each language) of the scales. All the remaining questionnaires were back-translated as recommended by Brislin (1986), namely one bilingual researcher translated from the source to the target language, and another blindly translated back to the source.

Trait-level measures. Trait-level questionnaires will be filled in the first week of data collection, and will assess teachers’ (a) socio-demographic information, and (b) job-related information, including job insecurity, job resources, job demands, and feeling valued as a teacher, and global self-concordant work motivation, positive affect, and work engagement.

Teachers’ job resources will be measured using a scale constructed by Bakker, Demerouti, and Verbeke (2004) focusing on two main components: autonomy and social support, which showed reasonable to good reliabilities in previous studies. For instance, in the Bakker et al. study in 2004, the autonomy subscale had a Cronbach’s alpha coefficient of .68, and social support had a Cronbach’s alpha coefficient of .81.

Teachers’ job demands is conceptualized as subjective workload, and will be assessed as the perceived levels of pressure that teachers experience in their work in general. Further, teachers’ job insecurity will be assessed with the Job Insecurity Scale (Borg & Elizur, 1992), which showed good reliability in previous studies (Cronbach’s alpha of .88, Staufenbiel, CJ König, 2010). The scale consists of 11 items in total with an aim to capture employees’ feelings and attitudes about their job insecurity.

Feeling valued as a teacher will be assessed via one item, designed specifically for this study. This variable will serve as an indicator of the respectability of teachers’ occupation in a country.

Week-level measures. Teachers’ weekly measures will include assessment of self-concordant work motivation, positive affect and work engagement experienced during a work week. Pupils’ weekly measure will include assessment of school-related well-being. We adapted the scales in order to capture within-person weekly fluctuations (e.g. from “My job inspires me” to “My job inspired me this week”; and “I felt happy at school” to “I felt happy at school this week”). Scale adaptation for weekly diary use has been proven to be effective and reliable for capturing within-person well-being fluctuations in previous studies (Bakker & Bal, 2010; Totterdell, Wood, & Wall, 2006; Xanthopolou et al., 2012).

Pupils’ school-related well-being will be assessed using a modified version of the School Happiness Index (SHI; Ivens, 2007). In order to capture how 10-year-old pupils feel at school in a given week, we modified the SHI by using only positive items and added two additional items (e.g. “I felt happy at school this week” and “I tried my best at school this week”). We will test the validity of this scale in our pilot study.

Teachers’ weekly self-concordant work motivation will be assessed via the self-concordance subscale of the Motivation At Work Scale – 3rd version, that demonstrated high reliability with Cronbach’s alpha coefficient of .86 (Gagné et al., 2010). To capture the weekly reasons for putting effort into their job, we added the words “this week” on the end of each statement (e.g. Figure 1: Hierarchical structure of the study.)
“Because I considered it important to put efforts in this job this week”). Teachers will rate their weekly positive affect using the Scale of Positive and Negative Experience (Spane) (Diener et al., 2010), which consists of six positive and six negative adjectives to assess experiences. The reliability coefficients were reported as .87 for the positive and .81 for the negative items. The instructions of the scale were adapted to “How you felt at work this week” to capture weekly changes.

Finally, teachers’ weekly work engagement will be measured using the UWES nine-item version and it was modified to capture weekly basis experiences (Bakker & Bal, 2010), which was proven to be highly reliable in previous studies. For example, Breevaart, Bakker, Demerouti, & Hetland (2012) showed that Cronbach’s alpha for the whole scale was .93.

Proposed Analysis
The current study will have a three-level hierarchical structure with at least 60 teachers at Level 3 (trait level assessments), assessed via 3 weekly assessments (Level 2), and with 20 pupils per teacher per week (Level 1), as illustrated in the Figure 1. Hence, we will use multilevel linear modeling to analyze the data (MLM; Snijders & Bosker, 1999).

Level 3 (teacher trait-level) variables will be teachers’ country of origin, trait-level job insecurity, feeling valued as a teacher, job resources and job demands, work motivation, positive affect and feelings at work and work engagement, which will serve as control variables in our study. Level 2 variables (teacher week-level) will be teachers’ self-concordant work motivation, positive affect and work engagement. Level 1 (pupil week-level) variables will be pupils’ experiences of school-related well-being. We will employ a centering strategy recommended for multilevel models (Peugh, 2010), that is, we will center the Level 1 and Level 2 predictor variables — variables that fluctuate on a within-person level — at the respective person mean, whilst centering the Level 3 variables at the grand mean.

For the power analysis, according to Hox (2010), 50 units at the highest level with 5 cases per unit on lower levels is needed for sufficient power to test fixed effects. The current study will have a three-level hierarchical structure with at least 60 teachers at Level 3 (trait level assessments), assessed via 3 weekly assessments (Level 2), and with 20 pupils per teacher per week (Level 1). In this way, we expect that the study will have sufficient power. In addition, in the analyses, as recommended by Peugh (2010), we will use the proportional reduction in variance statistic as one of the effect size estimates that are generally accepted in MLM analyses.

Ethics
Due to the sensitive nature of the sample, it was critical that the exact ethical requirements for each country were met. The core focus of the ethics applications was to reduce any potential risks that participants may encounter, with specific provisions and amendments made to ensure participant anonymity. For example, specific codes will be generated for each participant by asking a series of simple questions (such as “Write the first letter of your mother’s first name”). These measures have been devised so that participants’ identity and data remain confidential through all stages of the study.

Each researcher first identified the ethical procedures in their country for conducting research in primary schools before applying to the appropriate institutions. A number of common threads and distinct variations in attaining ethical clearance from country to country were noted. Approval was granted by established ethics research committees in accredited psychology departments of local universities in Ireland, Slovenia, Switzerland, Spain, and Turkey. Since not all of the researchers are enrolled in a university this year, affiliation with a suitable educational institute was attained in certain cases.

Ethical clearance for this study is more complex in that data collection will take place in public primary schools. Therefore, applications have been made to external bodies responsible for the education sector in specific countries. For example, permission was provided by the Ministries of Education in both Spain and Turkey. Ethical approval from a certified ethical research committee is compulsory prior to contacting these agencies. In the case of Romania, permission is granted by the principal of each individual school and no overall clearance from an ethics board is required.

Practical
The research team, consisting of six students from six European countries and a supervisor (a PhD candidate), elaborated the study design. Every group member has one of the following defined roles: Communications Officer, Lead Analyst, Project Manager, Literature Review Analyst, Policy Analyst, and Work-In-Progress Coordinator.

Communication within the research group is warranted through fortnightly Skype meetings and the use of Google Groups. Data is exchanged through Google Docs and Dropbox. Protection of the data gathered is guaranteed through using universal non-identifiable codes for each participant, and the data is stored on group members’ secured personal computers.

So far, the most challenging aspects of this project have been identifying potential sources of funding. However, this has not thwarted the project as the costs are relatively low (e.g., economic management of printing and photocopying questionnaires; low travel expenses because each researcher can collect their data at their domicile or nearby city). All costs were self-supported.

Current status of the project
During the European Summer School, we were presented with the theoretical background of the study in order to clearly define our main research goals. From these goals, we devised a detailed study design and decided which measures will be used to appropriately assess the relevant construct. Afterwards, we worked on the literature review. During this process, we have slightly adapted the study design due to theoretical and methodological concerns.
We have acquired ethical approval from the appropriate institutions except in Romania (where the researcher will collect ethical approval from each individual school) and translated the scales into German, Romanian, Slovene, Spanish, and Turkish. The pilot study has been conducted in two schools (N=21) in Slovenia. As of November 2013, data collection has commenced in Slovenia, whereas other countries are contacting and informing schools about the study.

Prospective Discussion
The current study aims to provide novel and useful insights on teachers’ and pupils’ well-being in school. Building upon previous research on well-being in school context, job demands-resources theory (Bakker & Demerouti, 2014), and self-determination theory (Gagné et al., 2010) our research aims to make significant contributions to the well-being literature by examining the determinants as well as the associations between work-related well-being of teachers and school-related well-being of their pupils on a weekly basis. While this is one of the few field studies to examine within person changes, it is not without limitations. Given the cross-cultural nature of the study potential barriers that may affect current research include response rate, sample equivalence, and the self-selection bias. Furthermore, the study relies on self-report questionnaires, which might not accurately capture the objective reality, and might increase the likelihood of common method variance. A full disclosure of the present study is expected by August 2014.

References


