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The role of hope in language teachers’ changing stress, coping, and well-being☆

Peter MacIntyre a,*, Sarah Mercer b, Tammy Gregersen c, Andrew Hay a

a Cape Breton University, Canada
b University of Graz, Austria
c American University of Sharjah, United Arab Emirates

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ABSTRACT

Language teaching has been described as a “profession in crisis”; a situation likely worsened by the effects of an emergency conversion to online teaching during the COVID-19 pandemic. The present study examines two waves of data (from April and November 2020) on stress, coping, and well-being during those eight months. Results show an increase in teachers’ stress associated with health and travel but decreases in stress due to online teaching and the shortage of goods in retail stores. There was a significant reduction in coping behavior as teachers settled into the new normal. Well-being, as measured by PERMA, declined significantly, and there was a significant increase in sadness, loneliness, and anger. However, teachers reported an increasing sense of growth during trauma. Time 2 data included a measure of hope, defined by feelings of agency and available pathways to goal achievement. Rarely has hope been studied among teachers in general or language teachers in particular. Results show significant, positive correlations between hope and various measures of successful coping and teacher well-being, including a sense of growth over time. The study suggests the time frame of the study was especially difficult for teachers, but that hope is associated with more positive outcomes.

1. Introduction

Language Teaching has been described as a profession “in crisis” with a “staggering” number of teachers leaving the profession shortly after becoming a teacher (Hiver & Dornyei, 2017, p. 406). This is a troubling trend that may be rapidly accelerating according to a survey of 2000 teachers in the UK (Fullard, 2021). Even before the stress and disruptions caused by the COVID-19 pandemic, language teachers experienced a significant number of challenges including demanding workloads, finding a suitable work/home balance, difficulties in classroom management, stressful interactions (e.g. with colleagues, students, parents, and school administrators), along with excessively high societal expectations (Johnson et al., 2005; MacIntyre et al., 2020; Talbot & Mercer, 2018). Being a language teacher adds unique dimensions to the stress of teaching because it involves negotiating boundaries between cultures, diverse learner proficiency levels, and precarious or emotionally demanding classroom contexts with typically high-energy methodologies (Mercer et al., 2016; Borg, 2006; Cosgrove, 2001; Gkonou et al., 2020; Gkonou & Miller, 2017; Horwitz, 1996; Wieczorek, 2016). The present study was designed with a dual purpose. First, as a follow-up to a previous publication (MacIntyre et al., 2020), this study...
allows us to examine how 16 sources of stress, teachers’ coping efforts, and well-being have changed over the first eight months of the COVID-19 pandemic. A second focus is on the potentially significant role played by hope in facilitating well-being under difficult conditions, and the potential contribution of hope theory to understanding the reactions of language teachers.

2. Literature review

2.1. Stress and coping

Literature on teacher reactions to the COVID-19 pandemic is developing rapidly, although much of the focus has been on pandemic pedagogy or the reactions of learners (Jelińska & Paradowski, 2021). These days, and likely for the foreseeable future, it will not be possible to study language teacher well-being without acknowledging the overpowering and decidedly mixed impact that the COVID-19 pandemic and the emergency conversion to online teaching has had on language teachers (Gregersen et al., 2021; Jin et al., 2021; Kulikowski et al., 2021). The pandemic has affected levels of stress, anxiety, and depression (Santamaria et al., 2021), altered the work-life balance for many teachers, especially women (Uddin, 2021), and led to a sense of burnout (Zadok-Gurman et al., 2021). Research has shown that the ability to regulate emotional reactions and the levels of teacher psychological well-being are significantly predictive of the degree of teachers’ engagement in the work of being a teacher. Psychological well-being shows stronger predictive force than emotion regulation, though the strength of the correlations vary across contexts (Greenier et al., 2021).

In one of the early studies in the area (MacIntyre et al., 2020), we examined the stress and coping of language teachers at the outset of the pandemic (over a two-week period in April 2020) using Lazarus’ (1996; 2006) transactional model of stress and coping. The theory proposes that an iterative process underlies the relationship between stress and coping. On the one hand, an appraisal process provides both an assessment of what is at stake and identifies the resources that are available to deal with a potential stressor (Lazarus & Folkman, 1984). On the other hand, coping is the process of responding to a stressor to mitigate its negative effects; coping is thus key to the relative success of adjusting to the demands of the situation (Gustems-Carnicer & Calderón, 2013; Pyhältö et al., 2020; MacIntyre et al., 2019).

In the recently detailed study, we measured stress with a 15-item index written specifically to reflect experiences of language teachers. Coping was assessed using a 28-item inventory (the Brief-COPE; Carver, 1997) that identifies 14 strategies grouped into approach and avoidant coping based on factor analysis. Approach coping strategies include Acceptance, which involves acknowledging the reality of what happened and learning to live with it. Emotional Support means seeking comfort and understanding. Positive Reframing or seeing the situation from a different, more affirming light consists of seeking something good in adversity. Active Coping concentrates one’s efforts on doing something about the situation and taking action to try to make it better. Instrumental Support involves seeking help and advice from others.

Planning means thinking about what to do and devising a strategy to deal with the stressor. Behavioral Disengagement implicates giving up or abandoning attempts to cope. Denial is exemplified by saying to oneself ‘this is not real’ or refusing to believe something has happened. Self-Distraction includes turning to other activities in an attempt to take one’s mind off the stressor. Self-Blaming features self-criticism or even self-censure. Substance Use includes using alcohol or drugs to feel better. Venting involves verbalizing unpleasant feelings with a hope to let them escape, or more generally, to express negative feelings. In addition, two uncategorized coping strategies that did not appear to load on either the approach or avoidance coping factors were the use of Humor and finding comfort in Religion.

Results of the previous study (MacIntyre et al., 2020) showed substantial differences among language teachers in the effects of adopting different coping strategies. Greater use of approach strategies, which are more active in attempting to modify the stressor or recruit resources to deal with it, was associated with more positive outcomes including self-assessed well-being, resilience, growth, and physical health. Use of avoidant coping strategies which ignore, distract from, or set aside stressors were associated with lower levels of well-being, resilience, and health, but higher levels of loneliness, sadness, anger, and anxiety. Results also showed that, at least early in dealing with the pandemic and its consequences, there was a cost to teachers using the avoidant style of coping to deal with stress, associated with fewer positive outcomes, more negative emotion, and higher levels of stress.

The process of coping with ongoing stress potentially changes over time (Lazarus, 1996). Coping efforts, by their nature, affect the situation in which a teacher works, but there is little empirical evidence in the literature to assess what the changes in stress and coping are going to be as teachers settle into a ‘new normal.’ Therefore, the first focus of the present study is to examine how stress and coping changed between April and November 2020, over the first eight months of the pandemic. Changes in the positive outcome measures of well-being, resilience, growth, and health, as well as changes in negative outcomes of loneliness, sadness, anger, and anxiety are examined.

2.2. Hope

Against this backdrop was a consideration of hope as a key resource that can strengthen teacher well-being at a time when stress remains high, but the use of coping strategies might be expected to decline. Hope theory provides a potentially powerful, and largely unexplored dimension to language teacher psychology (Hiver, 2016). Prior research has linked individual differences in hope to a long list of desirable outcomes, including better academic outcomes, physical health, and psychological adjustment among other things (Gallagher et al., 2019; Rand & Touza, 2021; Snyder, 2002). Rarely, however, have teachers been the focus of empirical research on hope and well-being (Eren, 2014). As the field considers possible psychological resources that can serve as a buffer to stress, hope offers an avenue for research.
Hope theory has been identified most prominently with Snyder and colleagues’ work (Gallagher & Lopez, 2018; Rand & Touza, 2021; Snyder, 2002). Over 30 years of research has generated a conceptualization of hope as a combination of goals and pathways to achieve them, plus the agency to act (Snyder, 1989, 2002). The key components of hope can be defined as:

1. Goals – the mental anchors or targets that a person wishes to pursue. They can be perceived as verbal descriptions or images based on what one wants to either approach or avoid.

2. Pathways – or pathway thinking, reflect activities that lead to goal attainment. Hope implies that a person can confidently generate at least one plausible route to achieve the goal, and likely can create alternatives, should the primary route be blocked.

3. Agency – or agentic thinking, sees the self as responsible for moving along the pathway(s) toward the goal. It is “I” or “me” that is responsible to act on the goal, it is a personal motivation. The concept of agency is closely linked, in an iterative fashion, with pathway thinking as the goal is pursued; each feed into the other over time as they are modified by experience.

Initially, hope theory emerged as a contrast to excuse-making where people distance themselves from outcomes they do not want (Snyder, 2002). Hope moves people toward what they do want; it is volitional movement toward their specific goals along self-selected pathways (Rand & Touza, 2021). In several interviews with research participants, Snyder (2002) reported finding that goals are often described as actions along pathways, commonly expressed in day-to-day talk as ‘things I have to do’ or with similar phrasing (Snyder, 2002). The cognitive-agentic dimension of Snyder’s approach differentiates it from a more emotion-focused approach by other researchers who emphasize feeling of hopelessness (Herth, 1992) or hopefulness (Fredrickson, 2001). Whereas the cognitive view sees hope as an antecedent to action, the emotion-focused perspective views hope as primarily a reaction to events during the pursuit of goals. In a long-term pursuit with multiple goals, such as language teaching, hope may play a role as both an antecedent and consequence of a specific activity. Consistent with Snyder’s approach, we adopt a blended cognitive-affective-purposive approach to the conceptualization of hope, wherein action and the reasons for it are well integrated into the sense of hope. In this sense, hope implies the presence of a driving force to pursue one’s goals along the pathways envisioned, which can be particularly powerful motivational tools (see Dörnyei’s (2020) discussion of vision in SLA).

2.3. Hope and well-being

Research has shown that hope is related to a wide variety of factors, including academic success, job performance, physical health, and well-being (Rand & Touza, 2021; Snyder, 2002). Hope is positively correlated with various indicators of student success in school, including achievement tests, grades, and graduation rates in elementary school (Snyder et al., 1991), college (Snyder et al., 2002), and law school (Rand et al., 2011), even after controlling for other relevant factors such as prior grade point average. A meta-analysis shows that hope is significantly related to job performance across many career types including after controlling for relevant variables such as self-efficacy and cognitive ability (Reichard et al., 2013). Hirschi (2014) found that hope is a significant factor in proactive career planning, showing a direct effect on positive career development attitudes, leading to higher ratings of job and life satisfaction. In the area of physical health and illness, hope has been associated with successful coping efforts in a range of conditions, including burns, arthritis, fibromyalgia, and blindness (Rand & Touza, 2021).

Beyond physical health, hope has been associated with a variety of indicators of well-being and psychological adjustment (see Gallagher & Lopez, 2018). The literature on well-being features several definitions that emphasize different components, such as the relative balance of positive and negative emotions (Diener et al., 1999). In this paper, we employ Seligman’s (2011) model of well-being defined by PERMA with five domains: positive emotions, engagement, positive relationships, meaning and accomplishment (see below in Methods for details). Among the strongest positive correlates of hope is finding meaning in life (Feldman & Snyder, 2005). On the other side of the psychological spectrum, studies show that low levels of hope are found among people who are clinically depressed or suicidal (An et al., 2012; Davidson et al., 2009). Alarcon et al. (2013) report the results of a meta-analysis that provide convincing evidence that hope is positively related to happiness and negatively related to stress and depression. They conclude that, “(a)s a whole, these results disconfirm the unflattering assumption that many lay critics have historically expressed regarding optimism and hope—that positive expectations are a manifestation of naiveté, maladjustment, and psychopathology” (p. 824).

The key to the positive effects of hope appear to stem from personal agency in implementing coping efforts and a knowledge of possible pathways (Rand, 2018). A six-year study of adolescents showed that hope is an antecedent of positive affect (with little evidence of the reverse effect), showing that hope has particularly strong effects on well-being at times of transition (Ciarrochi et al., 2015). Snyder (2002) theorized that hope is related to physical health along two pathways, primary prevention (avoiding illness) and secondary prevention (effectively dealing with an illness that has developed), which can be interrelated as specific conditions develop (Snyder et al., 2000). Hope appears to operate in a self-fulfilling prophecy where those with more hope produce higher expectations for success, which contributes to promoting the specific action pathways that help produce success, further feeding the development of hope (Rand & Touza, 2021). There is sufficient evidence in the literature to suggest that hope is a significant factor in stress and coping, positive and negative affect, and health and well-being. However, there is not much research concerning the role of hope among teachers or how it might buffer stress and contribute to well-being.

Snyder (2002) notes that, perhaps hope among students has been investigated, little research is available on hope among teachers. Eren (2014) suggests that, “although the importance of dispositional hope has long been recognized in teaching and teacher education …, there is little empirical evidence in relation to role of hope in teaching and teacher education” (p. 77). Hiver (2016) provides the only empirical study to date on language teacher hope. Hiver’s innovative design examined trajectories of hope and hardness among 19 novice English (ESL) teachers in South Korea over 12 months. Using a combination of individual-level change point analysis.
and interview data, Hiver documents how early-career difficulties led some teachers to lose hope and leave the profession. Several other first-year teachers, also faced with powerlessness and difficult conditions, found or developed reasons to hope that structured their agentic, pathways thinking. Hiver (2016) states, “(w)hat was unforeseen was that this powerlessness would act as a catalyst for increased intentionality - itself one precursor to agentic thought and behavior - as if a conscious choice were made by these L2 teachers to assert control where they previously had none” (p. 186).

2.4. The present study

The present study follows-up and extends the previous investigation of language teacher stress, coping and well-being (MacIntyre et al., 2020). The previous investigation found that the use of avoidant coping strategies was problematic for teachers’ well-being, and the use of approach coping was associated with better psychological adjustment. To extend that research, a scale to measure hope was added to test whether hope correlates with coping and well-being. Although the target group of participants is comprised of language teachers, the issues raised in studying well-being extend beyond teaching itself, especially as the Covid experience blurred the lines between home and work life. Given the levels of stress seen in the first wave of data collection, a measure of hope was added to the second wave. As before, a web survey was used to collect data from an international population of language teachers, using the same method as Time 1. The data analysis addresses the overarching question: What has changed in stress, coping, and well-being as the pandemic wore on, and what role does hope play in language teacher adaptation and well-being? The research instruments are broad in scope, referring to how well the teachers are doing in their well-being overall. The research questions are:

RQ1. How do ratings of (a) specific stressors, (b) coping strategies, and (c) measures of well-being change from Time 1 (March–April 2020) to Time 2 (November–December 2020)?

RQ2. How does hope correlate with stress, approach/avoidant coping, well-being, and negative emotions?

RQ3. What are the strongest predictors of teacher hope?

3. Method

3.1. Participants

Seven hundred and sixty-five language teachers were recruited at Time 1. At Time 2, a total of 245 language teachers participated in this study. For more details on the sample characteristics of the participants at Time 1, see MacIntyre et al. (2020). At Time 2, over 40 countries were represented in this study; common countries include Japan (9%), Canada (6.90%), United States (6.60%), Turkey (5.70%), and Austria (5.30%). Participants were primarily female (N = 180). Table 1 presents the full age range of the sample.

Regarding teaching experience, most participants taught English as a second/foreign language (N = 201), and most were either teaching through a blended format of online and face-to-face teaching (N = 77) or solely online (N = 145). Participants were employed in a variety of institutions, including post-secondary institutions (33.9%), secondary institutions (20.8%), or a combination of institutional levels (12.7%).

3.2. Materials

Materials for the present study also were used in the previous study (MacIntyre et al., 2020), with a measure of hope added. All the materials were chosen to be brief measures of concepts related to stress, coping, and well-being. We chose brief measures or short-form scales to allow a greater breadth of topics to be assessed.

1. Hope Scale. A six-item short-form version of Snyder’s original Hope Scale was used for the current study. Items assessed an individual’s ability to problem solve, meet goals, and feelings of successfulness in their daily lives. Reliability was shown to be excellent (McDonald’s Ω = 0.88). Materials for the present study were used in the previous study (MacIntyre et al., 2020), with a measure of hope added. All the materials were chosen to be brief measures of a concept related to stress, coping, and well-being.

2. Brief-COPE (Carver, 1997). A 28-item index was used to assess general coping strategies.

Fourteen subscales were created with two items each. Seven of the subscales (e.g., denial, self-blame) were classified as avoidant coping strategies and the other seven (e.g., active coping, positive reframing) were considered approach coping strategies.

| Age Group | N  | %    |
|-----------|----|------|
| under 22-32 | 53 | 21.6%|
| 33-43     | 79 | 32.2%|
| 44-54     | 71 | 29.0%|
| 55- above 65 | 39 | 15.9%|
| Missing   | 3  | 1.2% |
internal consistency was established for avoidant coping (McDonald’s $\Omega = 0.84$) and approach coping (McDonald’s $\Omega = 0.90$).

3. Stress Index (MacIntyre et al., 2020). A 15-item stress index (see Appendix A) was used for the present study to assess a number of general stressors an individual may encounter. Stressors assessed include the prospect of teaching online, a blurred work/life balance, and the inability to travel due to public health regulations. Higher item ratings indicated higher stress. Excellent reliability was established (McDonald’s $\Omega = 0.89$). A brief technical report with more information on the Stress Index is available upon request from the corresponding author.

4. PERMA Profiler (Butler & Kern, 2016). Fifteen items were used to assess general eudaimonic happiness and positive well-being. Five subscales were created (three items each): positive emotions, engagement, relationships, meaning, and accomplishment. Internal consistency was shown to be excellent (McDonald’s $\Omega = 0.92$).

5. WHO-5 Well-Being Index (Topp et al., 2015). A five-item index of general well-being was used. Items included feeling cheerful, active, refreshed, and interested, with higher scores indicating greater well-being. Excellent internal consistency was established for the current study (McDonald’s $\Omega = 0.91$).

6. Resilience (Amtmann et al., 2020). An eight-item index was used to assess resilience in general, with items reflecting keeping calm, keeping going, bouncing back, and doing important things. Internal consistency was shown to be excellent for the current study (McDonald’s $\Omega = 0.90$).

7. Growth Through Trauma. A revised measure of the Taku et al. (2008) Post-Traumatic Growth scale was used to measure growth in general, with the key revision being to rephrase the items to capture present growth, rather than past growth. The 10 items reflected the ability to handle difficulties, the value of life, and the ability to feel stronger. Excellent internal consistency was established (McDonald’s $\Omega = 0.92$).

8. State Anxiety (Marteau & Bekker, 1992). A short-form version of Spielberger’s state anxiety scale was used to assess state anxiety in general. The six-item scale contains three positive items (e.g. calm) and three negative items (e.g. worried); the positive items were reverse scored. Internal consistency was found to be adequate (McDonald’s $\Omega = 0.83$).

9. Health Index (Butler & Kern, 2016). A four-item index of perceived overall health was used based on items in the PERMA Profiler. The items asked about perceptions of general health, one’s health relative to other people, and satisfaction with both general and physical health. Internal consistency was established to be excellent (McDonald’s $\Omega = 0.90$).

10. Single-Item Indicators of Negative Emotions. Three negative emotions were taken from the PERMA Profiler: angry, sad, and lonely. McDonald’s $\Omega$ is not calculated for the single-item indicators.

3.3. Procedure

Google Docs was used to administer the survey. Data from Time 1 was collected in March and April 2020, while data from Time 2 was collected in November and December 2020. Participants were required to be 18 years of age or older to participate. Participation was voluntary; the first page of the survey advised participants that they were free to withdraw without consequence if they were feeling uncomfortable answering any questions. Informed consent was set as a mandatory question for all participants to ensure that they understood the purpose of the study and were advised that some questions might trigger sensitivities if they were feeling fragile.

3.4. Analysis

Analyses were conducted using the IBM Statistical Package for Social Sciences (v. 27). The analysis begins with a series of Multivariate t-tests to assess change over time (Time 1 to Time 2), including a test of change in levels of stress, coping behaviors, and

| Stressor                          | Levene’s F (HoV) | Test of Means | Partial Eta Squared |
|----------------------------------|-----------------|---------------|---------------------|
| Inability to travel              | .02             | 11.246        | .001***             | .012                 |
| My health                        | 2.36            | 4.960         | .026*               | .005                 |
| The health of my relationships   | .08             | .362          | .548                | .000                 |
| Workload                         | 4.77*           | 1.376         | .241                | .001                 |
| Loss of control over work        | .02             | .357          | .551                | .000                 |
| Teaching online                  | 2.09            | 10.957        | .001***             | .012                 |
| Loss of control over personal issues | .09           | .657          | .418                | .001                 |
| Loneliness/Feeling isolated      | .80             | 1.044         | .307                | .001                 |
| Irregular work hours             | .23             | .044          | .834                | .000                 |
| Financial stress                 | .13             | .176          | .675                | .000                 |
| Shortage of necessary goods      | 9.69**          | 15.624        | .001***             | .016                 |
| Caregiving                       | 7.06**          | 1.464         | .227                | .002                 |
| Relationships                    | .57             | 1.389         | .239                | .001                 |
| The blurred Work/Life Balance    | 1.20            | .395          | .530                | .000                 |
| No recreation                    | 1.99            | .032          | .858                | .000                 |

Note: * = p < .05, ** = p < .01, *** = p < .001; df (1, 935); HoV = Homogeneity of Variance assumption check.
well-being scores. The second set of analyses focuses on hope to assess its relationship to overall stress, approach and avoidant coping, negative emotion, WHO-5 well-being, resilience, perceptions of current health, and PERMA (including its subscales).

4. Results

4.1. Differences in stress ratings

To answer the first research question, whether ratings of stressors changed over the 8-month interval between data collection for the two samples, a MANOVA (Multivariate independent t-test) was conducted to compare mean stress scores from Time 1 and Time 2. Due to a much larger sample at Time 1, the assumption of equality of covariance matrices was violated [Box’s M = 174.94, F (120, 572,126.52) = 1.42, p = .002]. At the multivariate level, Pillai’s trace was found to be significant [V = 0.084, F (15, 921) = 5.63, p < .001, np^2 = 0.084]. At the univariate level, homogeneity of variance could be assumed for most stressors, with the exception of language teachers’ stress over their workload [Levene’s F (1, 935) = 4.77, p = .03], stress over a shortage of necessary goods [Levene’s F (1, 935) = 9.87, p = .002], and stress over caregiving [Levene’s F (1, 935) = 7.06, p = .008].

Examining the mean levels of stress at the univariate level, significant differences were found in language teacher’s stress concerning (a) their inability to travel, (b) their health, (c) teaching online, and (d) shortage of necessary goods changed over time. These results can be found in Table 2. Language teachers became significantly more stressed about their health and inability to travel over time, but less stressed about teaching online and facing a shortage of necessary goods over time. Fig. 1 illustrates the differences in means.

4.2. Differences in coping ratings

To answer the second part of RQ1, a second multivariate t-test was conducted to examine changes in coping strategies over time. Like the first research question, equality of covariance matrices could not be assumed [Box’s M = 190.23, F (105, 665,267.26) = 1.77, p < .001], likely due to the large sample size discrepancy between Time 1 and Time 2. At the multivariate level, Pillai’s trace was found to be significant [V = 0.643, F (14, 967) = 124.55, p < .001, np^2 = 0.643]. At the univariate level, Levene’s statistics are reported in Table 3. The mean ratings of coping strategy use all declined significantly over time. Detailed results can be found in Table 4 and Figs. 2–4.

4.3. Change in well-being measures

The third part of RQ1 addresses changes in well-being. A multivariate t-test was conducted to examine changes in various measures of well-being over time. Equality of covariance matrices could not be assumed [Box’s M = 36.02, F (10, 966,781.37) = 3.58, p < .001]. At the multivariate level, there was a significant effect of time [Pillai’s t = 0.04, F (4, 985) = 9.59, p < .001]. Homogeneity of variance could be assumed for WHO-5 well-being and growth during trauma, but not PERMA or resilience (see Table 4 for Levene’s test results). At the univariate level, there was a significant effect of time on PERMA and growth during trauma, but not WHO-5 well-being or resilience (see Table 4 for effects). PERMA decreased over time, but interestingly, scores on the growth during trauma measure increased for language teachers over time (see Table 5 for descriptive statistics).

To further investigate the multidimensional measure of PERMA, a multivariate t-test was conducted to examine differences over time. Again, equality of covariance matrices could not be assumed [Box’s M = 32.97, F (15, 849,954.25) = 2.18, p = .005] in this large
There was a significant effect at the multivariate level \( \text{Pillai's } \eta^2 = 0.02, F (5, 984) = 3.63, p = 0.003, p < 0.02 \). Homogeneity of variance could be assumed for positive emotions and engagement, but not for relationships, meaning in life, or accomplishment (see Table 4 for Levene's test results). It was found that time had a significant effect on all aspects of PERMA, except positive emotions (see Table 4 for univariate effects). Pairwise comparisons revealed that engagement in life, relationships, meaning in life, and accomplishment was higher for language teachers at Time 1 than Time 2 (see Table 5).

A final multivariate t-test was conducted to analyze differences in negative emotions (anger, sadness, loneliness, and anxiety) over time. Equality of covariance matrices could be assumed \( \text{Box's } M = 7.05, F (10, 949,594.78) = 0.70, p = 0.73 \). There was a significant effect of time at the multivariate level \( \text{Pillai's } \eta^2 = 0.03, F (4, 980) = 6.28, p < 0.001 \). Homogeneity of variance could be assumed for all four negative emotions. At the univariate level, it was found that anxiety did not change over time, but loneliness, anger, and sadness increased over time for language teachers (see Table 5).

### 4.4. Correlates of hope

The second research question involves hope and its correlations with stress, coping, negative emotions, and well-being (see

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Table 3

| Coping Strategies            | Levene's F (HoV) | Test of Means | Partial Eta Squared |
|------------------------------|------------------|---------------|---------------------|
|                              | \( F \)          | \( \text{Sig.} \) |                     |
| Approach Coping              |                  |               |                     |
| Positive Reframing           | .01              | 340.40        | <.001\(^b\)         | .26                     |
| Active Coping                | .000             | 298.74        | <.001\(^b\)         | .23                     |
| Use of Emotional Support     | .38              | 226.52        | <.001\(^b\)         | .19                     |
| Acceptance                   | .23              | 414.23        | <.001\(^b\)         | .30                     |
| Planning                     | .01              | 254.69        | <.001\(^b\)         | .21                     |
| Use of Instrumental Support  | .10              | 197.16        | <.001\(^b\)         | .17                     |
| Avoidant Coping              |                  |               |                     |
| Self-Distraction             | 1.28             | 296.43        | <.001\(^b\)         | .23                     |
| Denial                       | 4.16\(^a\)       | 413.15        | <.001\(^b\)         | .29                     |
| Substance Use                | 15.55\(^a\)      | 286.90        | <.001\(^b\)         | .23                     |
| Behavioral Disengagement     | 20.78\(^a\)      | 280.05        | <.001\(^b\)         | .22                     |
| Venting                      | .07              | 255.20        | <.001\(^b\)         | .21                     |
| Self-Blame                   | 22.10\(^a\)      | 188.44        | <.001\(^b\)         | .16                     |
| Other                        |                  |               |                     |
| Humor                        | 1.15             | 241.42        | <.001\(^b\)         | .19                     |
| Religion                     | 13.84\(^a\)      | 133.28        | <.001\(^b\)         | .12                     |

Note.

\(^a\) denotes homogeneity of variance (HoV) violated.
\(^b\) denotes significance; df (1, 980).

Table 4

Changes in Well-Being, PERMA and Negative Affect over Time.

| Dependent Variable            | Levene’s F (HoV) | Test of Means | \( \eta^2 \) |
|-------------------------------|------------------|---------------|-------------|
|                               | \( F \)          | \( \text{Sig.} \) |             |
| Well-Being                    |                  |               |             |
| WHO-5                         | .41              | .234          | .63         | <.001       |
| Resilience                    | 5.89\(^a\)       | 2.55          | .11         | .003        |
| Growth during trauma          | .17              | 13.79         | <.001\(^b\) | .01         |
| PERMA                         |                  |               |             |
| Positive Emotions             | 1.20             | 2.76          | .10         | .003        |
| Engagement                    | .03              | 4.34          | .04\(^b\)   | .004        |
| Relationships                 | 12.17\(^a\)      | 14.43         | <.001\(^b\) | .014        |
| Meaning                       | 8.63\(^a\)       | 6.22          | .01\(^b\)   | .01        |
| Accomplishment                | 6.59\(^b\)       | 5.94          | .02\(^b\)   | .01        |
| PERMA Profiler (total score)  | 6.54\(^a\)       | 11.51         | <.001\(^b\) | .01        |
| Negative Affect               |                  |               |             |
| Loneliness                    | 3.08             | 16.62         | <.001\(^a\) | .02        |
| Sadness                       | 3.87             | 4.81          | .03\(^a\)   | .01        |
| Anger                         | .94              | 12.72         | <.001\(^a\) | .01        |
| Anxiety                       | .01              | .09           | .77         | <.001       |

Note.

\(^a\) Denotes homogeneity of variance (HoV) violated.
\(^b\) Denotes significance; df (1, 988).

The sample. There was a significant effect at the multivariate level \( \text{Pillai's } t = 0.02, F (5, 984) = 3.63, p = 0.003, p < 0.02 \). Homogeneity of variance could be assumed for positive emotions and engagement, but not for relationships, meaning in life, or accomplishment (see Table 4 for Levene's test results). It was found that time had a significant effect on all aspects of PERMA, except positive emotions (see Table 4 for univariate effects). Pairwise comparisons revealed that engagement in life, relationships, meaning in life, and accomplishment was higher for language teachers at Time 1 than Time 2 (see Table 5).
Table 6). Pearson correlation coefficients show all negative emotions were significantly, negatively correlated with hope from a small to moderate degree. Hope showed strong positive correlations with measures of health, happiness, PERMA, WHO-5 well-being, resilience, and growth.

4.5. Predicting hope

The correlations for RQ2 show the bivariate relationships between scores on each of the measures and hope scores. However, given that the various measures have significant correlations among themselves (matrix available upon request), a stepwise regression was conducted to analyze the ability of the measures to predict hope while adjusting for overlapping variance among the predictors. Nineteen variables were entered to predict hope scores (stress, avoidant coping, approach coping, loneliness, sadness, anger, anxious, WHO-5 well-being, happiness, resilience, satisfaction with physical health, health compared to similar others, health in general, growth through trauma, and the five components of PERMA). The Q-Q plot of standardized residuals shows that the variance along the regression line is evenly distributed for the most part, with small fluctuations at the top and bottom of the distribution (see Fig. 5).

The final regression equation model included six significant predictor variables, accounting for almost 60% of the variance in hope scores ($R = 0.77$, $R^2 = 0.59$, adjusted $R^2 = 0.58$, $F(5, 237) = 60.04$, $p < .001$). The standardized regression equation included the scores for PERMA meaning in life ($\beta = 0.25$), PERMA accomplishment ($0.24$), resilience ($\beta = 0.20$), health compared with similar others ($\beta = 0.14$), growth ($\beta = 0.14$), and a negative contribution from avoidant coping ($\beta = -0.11$).
5. Discussion

5.1. Stress and coping

In addition to well-being, the present study documents language teacher stress and coping adjustment to the so-called “quaranteaching” demands of the COVID-19 pandemic (Jelińska & Paradowski, 2021); there is not much good news to share from the changes seen in the Time 1 to Time 2 data reported here. Two stressors showed significant increases, inability to travel and personal

Table 5
Means of Well-Being, PERMA, and Negative Affect at Time 1 and 2.

| Dependent Variable | Time 1       | Time 2       |
|--------------------|--------------|--------------|
| Well-Being         |              |              |
| WHO-5              | 12.43 (5.70) | 12.23 (5.75) |
| Resilience         | 28.52 (6.13) | 27.76 (7.22) |
| Growth during trauma | 22.58* (11.73) | 25.82* (12.17) |
| PERMA              |              |              |
| Positive Emotions  | 3.01 (1.07)  | 2.88 (1.11)  |
| Engagement         | 3.38* (.97)  | 3.23* (.99)  |
| Relationships      | 3.53* (1.06) | 3.22* (1.23) |
| Meaning            | 3.43* (1.10) | 3.22* (1.26) |
| Accomplishment     | 3.36* (.85)  | 3.20* (.97)  |
| PERMA Profiler     | 3.36* (.83)  | 3.15* (.95)  |
| Negative Affect    |              |              |
| Loneliness         | 1.75* (1.55) | 2.22* (1.65) |
| Sadness            | 2.08* (1.19) | 2.27* (1.27) |
| Anger              | 2.24* (1.26) | 2.57* (1.31) |
| Anxiety            | 11.76 (4.08) | 11.85 (4.06) |

Note: Standard deviations reported in parentheses.

* Denotes significant difference in means.

Table 6
Pearson correlation coefficients for Language Teacher Hope.

| Negative | Positive | PERMA |
|----------|----------|-------|
| Stress   | -.22**   | .60** | .69** |
| Approach Coping | .33** | Happiness | .58** | Positive Emotion | .60** |
| Avoidant Coping | -.30** | Resilience | .54** | Engagement | .57** |
| Loneliness | -.38** | Satisfaction w. physical health | .48** | Relationships | .48** |
| Sadness  | -.35**   | Health compared w. others | .44** | Meaning in Life | .66** |
| Anger    | -.29**   | Health in general | .43** | Accomplishments | .62** |
| Anxious  | -.25**   | Growth | .41** |       |       |

Fig. 4. Changes in language teacher uncategorized coping strategies over time.
health; two stressors showed significant decreases, the stress associated with both teaching online and shortage of necessary goods. Overall, reactions to stress remained relatively high as the pandemic wore on. Concomitant with maintaining prior levels of stress, there was a significant decrease in all coping efforts measured by the Brief COPE scale. Both the clusters of approach and avoidant coping strategies showed significant declines. Additional changes were noted in significant increases in negative emotions, anger, sadness, and loneliness coupled with significant reductions in well-being captured in the PERMA framework and its components, positive emotion, engagement, relationships, meaning in life, and accomplishments. Only the measure of Growth During Trauma can be interpreted as showing a significant improvement over time.

Between Time 1 and Time 2, the negative effects of the pandemic more-or-less endured. Viable vaccines to control the spread of the infection did not begin to be administered to the public until after Time 2 data was collected, with restrictions on travel and gatherings (including classroom teaching) in place throughout the duration of this study. Our original study (MacIntyre et al., 2020) found that approximately 95% of teachers were teaching online, with 75% of that sample having converted face-to-face courses to online delivery in less than a week. Additionally, the emergency conversion to online teaching is likely to affect the willingness to engage in online teaching for some time to come (Jin et al., 2021; Panisoara et al., 2020). Given that participants had approximately eight months to adapt to the new teaching conditions, some reduction in stress from teaching online seems to have occurred in the present data, along with a larger reduction in coping efforts. Data here show that personal health concerns increased as the virus proved difficult to control and more infectious variants emerged. Travel restrictions continued to affect both personal and professional activities. Although fears over shortages of goods eased over time, perhaps the most significant change was in the stress attributed to online teaching, which declined but did not disappear, and likely will continue to have an enduring impact on language pedagogy and teachers alike (Jin et al., 2021; Kulikowski et al., 2021).

The pattern of changes in the midst of the pandemic seems to suggest that the pre-existing crisis among language teachers only deepened because of reactions to the pandemic, including the emergency conversion to online teaching and increased job precarity (Education Policy Institute, 2021). Psychologically, the changes in teacher coping strategies might be taken as evidence of a process akin to learned helplessness, a sense that struggling in meeting the demands of the pandemic may be overwhelming and futile (Nuvvula, 2016). Declines in both approach and avoidant coping behaviors, coupled with the increased level of negative emotions and reduced level of well-being suggest that these have been quite difficult days to be a language teacher. This may be a troubling state of the profession, yet hope is not lost.

5.2. Hope

Although the literature shows it has significant effects on well-being in academic and career settings, hope has rarely been studied among language teachers (Hiver, 2016). However, the data here show that in a time of ongoing stress, hope might play a significant role in teacher well-being. In a profession that is perennially challenging and undergoing a period of significant disruptions created emergency modifications of teaching conditions, there is a need for hope (and hope research) among teachers (Snyder, 2002). As a positive psychological resource for teachers to draw on to help them cope and maintain well-being, hope theory offers considerable explanatory power (Rand & Touza, 2021).

Analysis of the present data shows that hope is significantly negatively correlated with both stress and avoidant coping to a
moderate degree. The strength of the correlation suggests that, even as hope increases, stress endures; yet the agentic, pathways thinking associated with hope might be part of the strategy to manage stress (Snyder, 2002). We found that hope negatively correlated with avoidance coping, suggesting a modest tendency to reject coping strategies such as denial, self-blame, or venting that are relatively ineffective in the long-term. The positive correlation with approach coping further clarifies that hopeful teachers are moving toward greater use of strategies that address the problems directly, such as increased planning, reframing the problem, and asking for assistance, including dealing with emotions (MacIntyre et al., 2020).

Given that hope implicates pathways for action, the pattern of relationships of hope with stress and coping suggest that agentic pursuit of pathway thinking is linked to reduced stress.

The correlations involving hope also show that it is significantly and strongly related to important facets of teacher well-being. Hope correlates most strongly with the measures of WHO-5 well-being and PERMA. Within the PERMA subscales, the strongest correlate of hope is meaning in life. Indeed, hope correlated strongly and positively with all the available measures of psychological and physical health and happiness. Combining the agency and pathways components suggest that hope is associated with both a sense of growth during the traumatic events and a capacity to find meaning in life. Agentic thinking proposes a personal motivation to meet one’s goals, and the regression shows a link to the accomplishment component of PERMA. Conceivably, some language teachers may better recognize an opportunity to improve their skill set and flexibility, and possibly the quality of future teaching balanced with other aspects of their lives, through the transition to online learning, such as adopting new methods of assessment in teaching, better self-care, and a sense of mutual concern for student well-being (see Gregersen et al., 2021). In order to achieve this combination of agency and growth, language teachers who more often engage in active, approach-oriented coping may perceive progress toward accomplishing their goals and used their personal motivation to succeed amid an immensely challenging period in their professional lives, rather than finding reasons or making excuses not to do so (Snyder, 2002).

5.3. Limitations and future research

The novel findings of the present study come with several limitations. The use of online questionnaires and the correlational nature of the results undoubtedly creates a need for future research to verify the current findings. Although the sample size of teachers was quite large for the first wave of data collection, the second wave yielded a much smaller and more variable sample (as indicated by the wider error bars in the figures and significant tests for heterogeneity of variance among several measures). In the present data set, hope was not examined at Time 1; therefore, the present study is unable to offer any results on how teacher hope may have changed over time. The comparisons between Time 1 and Time 2 resulted in some assumption violations; specifically, Box’s test of equality of covariance matrices typically resulted in a significant difference among covariance matrices. This was dealt with by using Pillai’s trace criterion, which is noted to be a suitable adjustment for significant Box M values (Tabachnick & Fidell, 2013). Additionally, there are significant correlations among the various correlates of hope (correlation tables are available upon request).

As a more general limitation of research in this area, we note that issues of cause-and-effect are difficult to tease apart in research on teacher well-being. Qualitative research can shed light on the process by which hope affects language teacher well-being, especially early in the career (see Hiver, 2016). Future qualitative studies can examine how the personal and professional pathways thinking associated with hope, along with a sense of agency, may provide concrete suggestions for enriching and safeguarding well-being. Future quantitative research may shed light on the relationship of hope with protective personal characteristics and professional development characteristics of teachers, including age, gender, experience, various teaching contexts, and characteristics of the school (Budzińska, 2018). Training programs and interventions may be adapted from other contexts and tested for efficacy with language teachers (Amundson et al., 2018; Koehn et al., 2012; Larsen et al., 2007). Teacher training already focuses on skill development, adding a focus on hope means incorporating more explicitly the connection between agentic use of new pathways or skills and the psychological health of language teachers. In the long-term, understanding hope may facilitate a better understanding of teacher well-being, health, and psychological adjustment (Gallagher et al., 2019; Rand & Touza, 2021; Snyder, 2002). Making teacher well-being a central concern, and focus of future research, could be one avenue to address the “crisis” in language teaching (Hiver & Dornyei, 2017); hope just might keep teachers in the field longer (Hiver, 2016).

6. Conclusion

Our focus in this paper is on the psychology of language teachers, specifically the correlates of hope. However, the data do not reflect issues of institutional responses or teachers more broadly. Although the implications of these data might be applicable to
teachers of other subjects, we studied only language teachers and must limit our findings to this group. Although several authors have speculated about the enduring consequences for teachers of the emergency conversion to online teaching during the COVID-19 pandemic (Jin et al., 2021; Kulikowski et al., 2021), its long-term effects are yet to be revealed.

The present study adds to the growing body of empirical research investigating teacher hope. Despite the associated stress, in the interval between Time 1 and Time 2 language teachers appear to settle into a “new normal” that has been established with the implementation of vaccinations worldwide. The pandemic and associated changes to language pedagogy may have also been an opportunity for hope to exert its influence on well-being and even growth during extreme adversity in an already mentally taxing profession. While the outlook of language teacher well-being during the COVID-19 pandemic has not been promising, hope provides a beacon of light for teachers in the face of adversity. The COVID-19 pandemic will likely affect research on teacher well-being for the foreseeable future, and although the profession will continue to deal with the effects of the COVID-19 pandemic for some time to come, there is still hope that teacher well-being and a sense of growth can be enhanced.

Author statement

Peter MacIntyre: Conceptualization; Formal analysis; Funding acquisition; Investigation; Project administration; Writing - original draft; Writing - review & editing.
Sarah Mercer: Conceptualization; Writing - original draft; Writing - review & editing.
Tammy Gregersen: Conceptualization; Writing - original draft; Writing - review & editing.
Andrew Hay: Formal analysis; Writing - original draft; Visualization; Writing - review & editing.

Appendix

15-item Stress Index

At the present time, how stressed do you feel by any of the following:

1. Inability to travel
2. My own health
3. Health of family/friends
4. Workload
5. Loss of control over work
6. Teaching online
7. Loss of control over personal issues
8. Loneliness/feeling isolated
9. Irregular work hours
10. Financial stress
11. Shortage of necessary goods
12. Responsibilities of caregiving
13. Family/relationship problems
14. Blurred work/life balance
15. Missing recreational/sporting activities

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