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Pre-service teacher education and beginning teacher burnout

Dr Richard Goddard
Faculty of Education
University of Southern Queensland
Australia
e-mail: rgoddard@halenet.com.au

Dr Patrick O'Brien
Faculty of Education
University of Southern Queensland
Australia
e-mail: obrienp@usq.edu.au

Requests for reprints to:

Richard Goddard PhD
PO Box 418 Stanthorpe Qld
Australia
e-mail: rgoddard@halenet.com.au

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Abstract

A sample of Queensland teachers at the beginning of their careers was surveyed to test the hypothesis that pre-service teacher education is a significant predictor of early career burnout. A total of 100 probationary teachers in their first year of teaching were surveyed anonymously on one occasion. After controlling for a range of variables known to influence stress and burnout in teachers, the duration of a teacher's pre-service teacher education program added significantly to the explanation of variance in Emotional Exhaustion and Depersonalization scores. Based on Hobfoll and Freedy's (1993) conservation of resources theory, the results of the present study suggests that teachers who have completed significantly less than four years of pre-service *teacher* education may have commenced their careers lacking important internal resources for handling the high work demands characteristic of the profession.

Burnout is well accepted as a syndrome characterised by an enduring sense of emotional exhaustion, frequent displays of depersonalizing behaviour towards clients, students or co-workers and a reduced sense of personal accomplishment (Maslach, Jackson, & Leiter, 1996). Burke and Greenglass (1995) have succinctly summarized the well accepted wisdom that “Psychological burnout is an umbrella term which includes three components that are conceptually distinct but empirically related (p.188).

Burnout within the teaching profession has frequently been investigated and the phenomenon has been well recognised as being problematic for teachers globally (Cherniss, 1995; Guglielmi and Tatrow, 1998). However within this significant body of research there exist a notably paucity of investigations that focus on early career or beginning teacher burnout. Guglielmi and Tatrow (1998) have specifically noted this gap in their review of the occupational stress and health literature pertaining to teachers and little has been published since this time to quantify the burnout phenomenon in beginning teacher populations or to verify the unlikely proposition that teacher burnout characterised by an early career onset has similar antecedents to burnout that is characterised by its appearance significantly later in a teaching career. Indeed, despite the consistency of the relatively few investigations into beginning career burnout that together appear to verify the existence of this phenomenon (Fimian & Blanton, 1987, Gold, Roth, Wright, & Michael, 1991) the veracity of the beginning career burnout concept has in all probability not been universally accepted by burnout researchers who have traditionally viewed burnout as the final stage of exhaustion in a long-term response to unremitting work stress. The failure of applied

research to comprehensively investigate the burnout phenomenon in populations that are commencing their careers has not only resulted in a gap in our overall understanding of the phenomenon but may have even influenced our thinking about how to address teacher burnout by the natural consequence that interventions have been focused where the research has been conducted, that is on the burnout experience of potentially more resilient populations of experienced teachers.

The focus of the present study is on burnout in beginning teachers and their pre-service teacher education. Drawing on Hobfoll and Freedy's (1993) conservation of resources (COR) theory, pre-service education is one pathway through which education students develop the necessary inner resources that equip them to successfully handle the very high work demands that teachers are known to face at the beginning of their careers (Elkerton, 1984; Fimian & Blanton, 1987; Schonfeld, 2001). According to the COR theory, job demands and the availability of resources predict the individual markers or dimensions of burnout differently (Halbesleben, & Buckley, 2004). For example, while high job demands predict high levels of Emotional Exhaustion, the inner resources that a worker can use to address the impact of these high and relentless job demands is associated (negatively) to the Depersonalization dimension. The recent finding of a significant association between teacher burnout and self-rated teacher competence in a sample of experienced teachers working in Australia appears to support COR theory in this regard (Pillay et al., in press). Therefore, since Australian teachers generally undertake extensive theoretical and practical pre-service education regimes to meet entry level qualifications for their profession, it is reasonable to hypothesise that the amount of pre-service education a student is exposed to during their program of teacher education will directly influence

both the level and effectiveness of the inner resources that a graduate could bring to meet the typically high job demands that a teacher faces at the beginning of their career. Indeed, as “on-the-job” learning obviously does not commence until a graduate commences work, it is clear that graduates commence their careers with their resources for teaching developed largely from their pre-service teacher education program. Perhaps then different pre-service teacher training programs result in graduands commencing their careers with differing levels of resources for teaching. Specifically, the present study has hypothesised that the longer programs of four years of undergraduate teacher education will result in the acquisition of a more effective set of inner resources for teacher graduands than shorter two-year pre-service teacher education programs or double degree programs that only have up to 3 years of education specific training. On the basis of COR theory therefore, all beginning teachers could be expected to report high levels of Emotional Exhaustion in their first two years of teaching relative to more experienced teachers simply because we know from previous research that commencing a teaching career is associated with relatively very high job demands. However those teachers with the least pre-service training are also hypothesised to have, on average, the least developed inner resources available for successfully managing these high job demands at the beginning of their careers. Therefore, according to COR theory, beginning teachers with less than 4 years pre-service education specific tertiary training would be predicted to report significantly higher Depersonalization levels than teachers with 4 years pre-service training, all other factors being equal. Furthermore, if it is true that inner resources are, on average, least developed at the commencement of work in the group of beginning teachers with the least pre-service training, COR theory would also predict that significantly higher Emotional Exhaustion levels would be reported by those

teachers with the least pre-service training in education simply because in teacher cohorts where inner resources are least developed the management of the very high job demands could be expected to be less successful in creating relief. Therefore higher overall Emotional Exhaustion could also be expected in the cohort with the lesser pre-service education. In summary therefore the present study has hypothesised that after controlling for other factors that are known to effect burnout in beginning teacher cohorts, length of pre-service training in education will have a significant negative association with (i) Emotional Exhaustion and (ii) with Depersonalization levels reported by teachers at the beginning of their careers. Or, stated another way, teachers whose pre-service teacher education consists of 4 years of tertiary study will have, on average, developed more effective inner resources for teaching during their period of pre-service education than teachers who commence work after shorter pre-service training histories in education specific courses, and that this difference would be evidenced by (i) significantly higher mean Emotional Exhaustion and (ii) significantly higher mean Depersonalization scores in the group of teachers with a history of lesser pre-service teacher education.

Method

Participants

Participants were beginning teachers working for Education Queensland as teachers in the Queensland State Government school system or working for Catholic Education as teachers in the Catholic school system in Queensland, Australia. The researchers contacted participants by mail that was posted by their employers. In all 450 beginning teachers were contacted and 121 consented to participate by returning a completed survey anonymously to researchers in the stamped addressed envelope

provided for this purpose. The responses of nine respondents (7%) were discarded as these respondents indicated that they had been teaching for more than 2 years, and the responses of another 12 respondents were also discarded as they indicated that they were teaching outside of either a mainstream primary or secondary school teaching position and therefore may have been exposed to atypical work environments and job demands. The present study and the analyses that follow is based on the responses from 100 consenting participants who stipulated that they were teaching at either a primary or secondary school and who indicated that they had been teaching for less than two years since commencing work as a teacher.

Instruments

Burnout was measured on one occasion using the Educator Survey version of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996). This is a 22 item self-report instrument consisting of three subscales: Emotional Exhaustion (EE: sample item, "I feel emotionally drained from my work"), Depersonalization (DP: "I feel I treat some students as if they were impersonal objects"), and Personal Accomplishment (PA: "I feel I am positively influencing other people's lives through my work"). Participants respond on a seven-point frequency rating scale, ranging from "never" (0) to "every day" (6). High scores on the EE and DP subscales and low scores on the PA subscale are characteristic of burnout. Reliability coefficients for the Educator Survey version of the MBI have been reported by several researchers (e.g., Iwanicki & Schwab, 1981), and have been reported as .89 for EE, .71 for DP, and .81 for PA for a large sample of Australian secondary school teachers ($N = 750$; Pierce & Molloy, 1990). In the present study the corresponding coefficient alpha scores were .90 for EE, .68 for DP, and .75 for PA.

Procedure

A sample of Queensland teachers employed at either the primary or secondary school level and in their first or second years of their career was contacted via mail with an invitation to participate anonymously in a single survey into beginning teacher well-being. Included with this invitation were a survey booklet that included the Educator Survey version of the MBI (Maslach, et al., 1996), and a questionnaire that specifically asked participants about their years of tertiary studies in education and in total. Sealed envelopes containing these items, along with a stamped addressed envelope for the return of the survey direct to the researchers, were passed to two employer organisations, Education Queensland and Catholic Education (Brisbane Diocese), for the surveys to be mailed to a total of 450 beginning teachers employed by these institutions.

Results

Summary Data

One hundred (100) primary or secondary school teachers who were in either their first year (71%) or second year (29%) of teaching indicated their willingness to participate in the present study by returning completed surveys directly to the researchers. Mean duration of employment as a teacher was 7.04 months ($SD = 4.07$, $n = 95$) and while as a group all respondents estimated working an average of 44.86 hours ($SD = 13.07$, $n = 99$) each week, full-time respondents indicated working and average 46.47 hours ($SD = 12.03$, $n = 90$). Fifty-four (54%) respondents were primary school teachers and forty-six (46%) secondary teachers. Thirty-seven percent (37%) respondents indicated they were teaching in a rural location and 35 (35%) indicated that they had relocated or shifted residences in order to take up their teaching position. Sixty-one (61%) of the beginning teacher respondents indicated that they had a mentor at the time they were surveyed. Respondents were specifically asked to describe all of their tertiary

qualifications and to specify the number of years of tertiary study undertaken within an education faculty. For most respondents (57%, $n = 57$) pre-service education was accomplished by successfully completing an undergraduate degree program over four years of full-time study. Forty-three respondents (43%) achieved their pre-service teacher qualifications by undertaking significantly less pre-service study within a faculty of education. Seventeen respondents (17%) indicated that they had obtained their qualifications for teaching by studying for two degrees concurrently in a double degree program and indicated that through such a program they had, on average, spent only 3.15 years ($SD = 1.11$) studying university subjects pertaining to education. Twenty-six respondents (26%) obtained their teacher qualifications by studying education through a 2-year post-graduate teaching degree program. Data on teacher age and gender was not collected as a previous investigation of beginning teacher burnout by the authors had shown that neither gender nor age was a significant predictor of beginning teacher burnout (reference supplied elsewhere).

A preliminary multivariate analysis of variance indicated that burnout levels between the first and second year cohorts was not significantly different for any of the three MBI subscales, $F(3, 96) = 1.19, p > .05$, therefore the responses of the first and second year teachers were combined for the following analyses.

To examine the hypothesis that beginning teachers who commence their career with four years study in education have acquired significantly better inner resources for commencing a teaching career than graduates with less pre-service teacher education, a series hierarchical linear regression analyses were conducted to predict each of the three MBI subscales. In the first step of each regression analysis data for total teaching months, weekly work hours and dummy variables describing whether a respondent was working in a primary or secondary school, whether they worked in a rural or urban location, whether they had a mentor and whether they had to shift their residence to commence work as a teacher were entered simultaneously to control for

between subject variability in these factors. In the second step of each regression analysis a dummy variable that categorized each respondent's pre-service education as either a four-year undergraduate degree or a shorter pre-service preparatory program was used. The responses of 94 respondents were available for these analyses, as 6 respondents had failed to provide data on their average weekly work hours. The results of each of these two-step hierarchical regression analyses are presented in Table 1.

Table 1

Summary data for three Hierarchical Multiple Regression Analyses Predicting Maslach Burnout Inventory (MBI) subscale scores (n = 94)

	<i>R</i>	ΔR^2	<i>F Change</i>	Significance <i>F Change</i>
Variables				
Predicting EE				
Step1 – Predictors	.52	.27	5.26	.000
Step 2– Under/Post grad. Prep.	.58	.07	9.47	.003
Predicting DP				
Step1 – Predictors	.53	.28	5.76	.000
Step 2– Under/Post grad. Prep.	.57	.04	5.45	.022
Predicting PA				
Step1 – Predictors	.39	.15	2.65	.021
Step 2– Under/Post grad. Prep.	.41	.01	1.06	.307

Notes. EE = Emotional Exhaustion. DP = Depersonalization. PA = Personal Accomplishment. Predictors that were entered simultaneously at Step 1 in each analysis: 1. do you have a mentor?; 2. shift residence to work?; 3. total teaching months; 4. primary or secondary teacher?; 5. total weekly work hours; 6. rural or urban school. The predictor: four year undergraduate preparatory training or other shorter pre-service teacher training? was entered at Step 2 in each analysis.

A post-hoc analysis demonstrated that the group of 57 beginning teachers who had completed a four year program of pre-service teacher education had significant lower mean Emotional Exhaustion and significantly lower mean Depersonalization scores than the group of 43 teachers with shorter pre-service teacher education histories, $F(1, 99) = 13.21, p < .001$ and $F(1, 99) = 14.54, p < .001$ respectively.

Discussion

Both hypotheses proposed by the present study were supported. Teachers who successfully completed a four-year program of teacher education reported significantly lower burnout scores on two MBI subscales as predicted. These results add to the existing evidence that in the teaching profession pre-service tertiary education has a significant association with the level of burnout that is subsequently reported in the first and second years of a teaching career. Furthermore, the pattern of results reported here are consistent with an explanation that draws upon the COR theory as applied to the burnout phenomenon (Hobfoll & Freedy, 1993). That is the results are consistent with the proposal that beginning teachers who have the least formal pre-service teacher specific education may commence work with significantly less inner resources to tackle the complicated and demanding work environments well known to the teaching profession. Clearly further investigations will be required to both confirm the results of the present study as well as to test the proposal that the differing burnout levels reflect differing levels of inner resources, however, as the present study is not the first to demonstrate different burnout levels in beginning teachers with different pre-service training histories the results presented here should not be dismissed lightly.

There may be other explanations that could account for the results of the present study. For example it has been suggested elsewhere that the association of

significantly higher burnout levels with shorter pre-service training programs are not in fact the result of reduced training in education, but are in fact the result of additional tertiary training in non-teaching areas. Pertinent to this alternative explanation is the reality that the group of beginning teachers who had the least pre-service teacher training are also mostly the group who commenced their teaching degree with more than one degree. This alternative proposition draws upon Adam's (1965) equity theory for justification, that is beginning teachers with the greater pre-service tertiary study may have higher expectations of rewards from a teaching career, commensurate with the added preparation they have undertaken. While this may be a viable alternative explanation to the explanation suggested by COR theory, for equity theory to be a potent explanation for the results of the present study the failure to find a significant difference across the third burnout dimension, Personal Accomplishment, would have to be explained.

Having established that teachers commencing their careers with lesser pre-service teacher specific education demonstrate, at the beginning of their careers, higher burnout characteristics on two specific components of the three dimensional burnout phenomenon, a number of implications can be anticipated and a number of practical suggestions for future research can be suggested.

Perhaps most obviously these results raise significant issues for institutions that provide pre-service teacher education. Particularly as tertiary students are required to pay significant fees for obtaining entry level qualifications, institutions that provide pre-service teacher training have commercial obligations to accurately represent their products, and if indeed universities in Australia are offering different pathways into teaching that result in different level of preparedness for new entrant teachers one could argue that this should be clear to prospective students at the time they are committing to purchase a place in one or other of these training programs.

There are also clear implications for the government regulators and administrators of education policy in Australia. Globally the profession has been experiencing very high attrition rates for teachers who are at the beginning of their careers (Smith & Ingersoll, 2004) and there is some evidence that attrition rates are highest amongst the best and brightest new entrant teachers (Ewing & Smith, 2003). The problem has been described elsewhere as becoming critical because the bulk of the more experienced and stable teacher workforce in a number of countries is approaching retirement and a future teacher shortage will be a global reality unless new entrant teachers remain in the profession at higher rates than is presently the case. One obvious way of combating both a high attrition rate and a future teacher shortage could be to ensure more teachers are graduated into the pool of potential employees. The results of the present study strongly suggest that if such a program is instituted then it may be unproductive to produce more teachers through programs involving reduced teacher training.

There are also implications for the employers of teachers specifically in respect of how they approach inductions into the profession, particularly as graduate teaching qualifications continue to be a popular way of entering the teaching profession in Australia. The present study clearly suggests that the one size fits all approach to induction should be reviewed and that effective induction programs for new teacher graduates should pay significant attention to pre-service teacher training histories as well as other factors known to significantly influence well-being, performance, job satisfaction and attrition in beginning teachers. However, before the findings presented here are accepted as an enduring or universal phenomenon significant for the teaching profession the authors urge further replications to be carried out in other teacher populations by other researchers. The inherent methodological difficulties associated with research into beginning teacher phenomena have been acknowledged elsewhere (Ewing & Smith, 2003), and like other studies in this area, the present investigation is associated with some serious limitations that would make further

replication prudent if not imperative. Of particular note is the question of whether age and gender should have been included in the group of variables that were entered at step one of each regression equation. Various studies in undifferentiated teacher cohorts have found these variables to be both significant and not significant predictors of burnout and it could well be argued that the results of the present study may be the result of age or gender differences and not pre-service training history. Similar arguments could be mounted for variables such as school size (i.e., student numbers), and no doubt other such variables, however this line of discussion leads to the other serious limitations of the present study, that of sample size, and its representativeness. One hundred respondents is a relatively small sample on which to conduct multivariate analyses generally and in the present study the complexity of the analyses permitted was both limited by the sample size and the specific focus of the research project. Related to sample size is the question of sample selection and specifically how representative the sample of teachers investigated are of beginning teachers in general. The sample was recruited from teachers working within Queensland, Australia. Perhaps the early career burnout phenomenon is particularly associated with this state? Furthermore as participants were recruited through voluntary invitations with the result that significant numbers of potential participants did not engage in the present study, one cannot discount the possibility that those teachers who agreed to participate may have systematically differed from those who declined to be involved for reasons unknown. To help overcome the potential for low recruitment numbers and selection bias that arises from this approach to recruitment it is suggested, therefore, that future replications should obtain the active cooperation and visible support from universities as well as the various teacher employer groups and/or teacher unions as part of a comprehensive national recruitment strategy that identifies a nationally representative sample of potential respondents through student, employer and union records.

In conclusion, the present study has presented findings that, when viewed together with other investigations of beginning teacher and student teacher burnout, strongly suggest early career burnout may develop differently for teachers with different pre-service training backgrounds. These results may be of relevance to future researchers looking to determine why significant numbers of the best and brightest graduates in education have been noted to leave the teaching profession early on in their careers, and may be of direct relevance to policy discussions that are considering the introduction of significant reductions in pre-service teacher training programs as a potential solution to high early career attrition rates and potential future teacher shortages.

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