International Journal of English Language & Translation Studies
ISSN: 2308-5460

Probing Teacher Creativity in the Light of Motivation, Self-efficacy and Burnout

[PP: 58-68]

Parviz Alavinia
Corresponding Author
Urmia University
Urmia, **Iran**

Flora Pashazadeh
Urmia University
Urmia, **Iran**

ABSTRACT

Educational system of a country plays a key part in rearing a mentally and physically rich nation. The crucial role of teachers in the development of this system and training creative students is undeniable. Teacher creativity research has espoused the role of different factors, including teacher motivation, self-efficacy and burnout in creating more teaching creativity and increased teaching success. However, the findings of research in this regard are still inconclusive. The researchers in the current study embarked on probing the relationship between Iranian high school teachers' creativity on the one hand, and their motivation, self-efficacy and burnout, on the other. In so doing, 100 teachers were recruited as the study participants. To conduct the study, a set of questionnaires-Torrance's (2008) test of creativity, Hackman and Oldham's (1980) teacher motivation scale, Bandura's (1997) teacher Self-Efficacy questionnaire, and Maslach and Jackson's (1981) Burnout Inventory-were utilized. The results of the study showed that there is a significant positive correlation between teachers' motivation and self-efficacy, on the one hand, and their creativity, on the other. Moreover, a significant negative correlation was found between teacher burnout and creativity. The implications of the findings are discussed throughout the paper.

Keywords: *Teacher Creativity, Teacher Motivation, Self-Efficacy, Burnout, Correlation*

ARTICLE INFO	The paper received on	Reviewed on	Accepted after revisions on
	06/09/2018	**16/10/2018**	**19/12/2018**

Suggested citation:
Alavinia, P. & Pashazadeh, F. (2018). Probing Teacher Creativity in the Light of Motivation, Self-efficacy and Burnout. *International Journal of English Language & Translation Studies*. *6(4). 58-68.*

1. Introduction

As Goodwyn (2011) clarifies, successful practice of teaching has been referred to by different names on the part of different researchers, including 'effective teaching' (Cooper & McIntyre 1996; Kyriacou 1997), 'quality teaching' (Stones 1992), 'creative teaching' (Woods & Jeffrey 1996) 'veteran teaching' (Shulman 1987) and 'good teaching' (Brown & McIntyre 1993). Furthermore, there is a plethora of factors that may give rise to teacher success in the entire educational career. The impact of factors leading to teachers' success has received so much attention in recent years (e.g. Chan & Yuen, 2014; Karwowski, Gralewski, & Szumski, 2015; Nakata, 2011). Among the myriad issues involved in teaching success, it appears that teachers' sense of creativity and the amount of interest they may tax in producing novelty in teaching can be regarded as leading factors in shaping their career accomplishment.

Though other schools of psychology such as cognitivism and constructivism also underscored the role of creativity in learning and teaching, the principal psychological theory that bolstered encouraging creativity as one of the elemental caveats of learning was humanism (e.g. Williams & Burden, 1997). Creativity, as a key concept in pedagogy, has been delineated in different ways by different researchers. Li Wei and Wu (2009), for instance, define it as "the ability to choose between following and flouting the rules and norms of behaviour, including the use of language …" (as cited in Nicholas & Starks, 2014, p. 62). A more comprehensive delineation of creativity is provided by Xerri and Vassallo (2016) where they hold:

> Being creative means not just doing what trainers and other experts tell us we should be doing, but rather trusting our intuitions as educators to break new grounds, research our practices, experiment with new pedagogies, and try out new activities and spin-offs of things we are used to doing (p. 3).

Also, in Jónsdóttir's (2017) view, creative pedagogy must provide sense of agency, control, freedom, choice and autonomy for learners. However, as Mullet, Willerson, Lamb and Kettler (2016) declare, despite the lack of a coherent definition of creativity, most, if not all, delineations of the concept fall within four principal classes of personal, product-oriented, process-oriented and environment-driven creativity. According to Montijano Cabrera (2014), teacher creativity is highly required for reproducing and refining the tasks offered by the textbooks, and hence at times "the demands imposed by textbooks" (p. 274) may be repudiated or reoriented by the teachers in an attempt to bring about further appropriateness and more enhanced learning.

However, as Nunan (2013, p. 64) points out, a line must be drawn between creative tasks and the ones he refers to as 'reproductive'. While the former, as he notes, are the ones "that require learners to come up with language for which they have not been specifically cued" and "to put together familiar elements in new or novel combinations", the latter type involves reproducing and reformulating the incoming language which is presented by the teacher or by means of other devices such as textbooks. Though a great many factors and variables, such as *teacher cognition* (Tajeddin & Askari, 2016) are said to underlie creative practice of teaching and contribute to its proper implementation in education, *teacher motivation* (Kunter & Holzberger, 2014), *teachers' sense of self-efficacy* (e.g. Ho & Hau, 2014; Klassen, Durksen, & Tze, 2014; Urdan, 2014), and *burnout* (Kunter & Holzberger, 2014; Roth, 2014) are among the principle determiners of teacher creativity. It must be noted, however, that unlike motivation and self-efficacy, teacher burnout enjoys a negative correlation with creativity. In spite of the fact that previous literature has helped establish the relationship between these variables, little research, if any, has strived to find the true relationship among these four variables in the light of structural equation modelling (SEM). Thus, in an attempt to track the objectives of the current study and come up with a cogent model regarding the relationship among these constructs, the following research questions were formulated:

RQ1: Is there any significant relationship between high school teachers' motivation and their creativity?

RQ2: Is there any significant relationship between high school teachers' sense of efficacy-self and their creativity?

RQ3: Is there any significant relationship between high school teachers' burnout and their creativity?

RQ4: Which of the teacher variables (motivation, self-efficacy, and burnout) has a greater predictive power as regards teacher creativity?

2. Literature Review

As Richardson, Karabenick and Watt (2014) contend, though toward the end of twentieth century some researchers' attention turned toward exploring teacher factors and characteristics, such research was quite scant compared to investigations on student traits, and the bulk of research on teacher variables was confined to probing a small number of characteristics including burnout and self-efficacy. Issues such as teacher creativity, and more importantly teacher motivation are thus among the underresearched areas that are in need of more in-depth scrutiny.

Teacher creativity appears to be a fuzzy term by nature, and hence little consensus seems to exist among the researchers as to its features and components. Though literature on teaching creativity is replete with various stabs at delineating the concept, the attributes characterizing a creative teacher are enumerated in a comprehensive and thorough-going manner by Richards (2013). According to him, creative teaching involves, but is not restricted to, a) being knowledgeable, b) being committed to bringing about learning success, c) having familiarity with a wide range of strategies and techniques, d) risk-taking, e) seeking to achieve learner-centered lessons, f) being reflective, g) making use of an eclectic choice of methods, h) using activities which have creative dimensions, i) teaching in a flexible way, j) looking for new ways of doing things, k) customizing lessons in terms of learners' needs and interests, l) using technology, and m) seeking creative ways to motivate students.

Among various factors that are thought to bring about more creativity on the part of teachers, teacher motivation seems to be of a great significance. Increased levels of teaching motivation are likely to result from various factors. Blasé and Kirby (1992, cited in Whitaker, Whitaker & Lumpa, 2013), for instance, found that teachers get motivated by praise, attention and compliments provided on the part of

principals and administrative authorities. Although the role of extrinsic motives is undeniable, many teachers are also intrinsically motivated and hence aren't at the mercy of external incentives for getting motivated. Kunter and Holzberger (2014) state that intrinsically motivated teachers reveal a stronger crave for creative work and bolster their pupils' creativity via their innovative instructional endeavors. Intrinsically motivated teachers have also been found to enjoy higher levels of efficacy and lower levels of burnout (e.g. Keller, 2011; Klusmann, 2013; Kunter & Holzberger, 2014). Job overload, according to Roth (2014), is among the main factors that tamper with teacher motivation in a negative way and lead to increased levels of burnout.

It must, however, be noted that teacher motivation, unlike the traditional belief, is an unstable, burgeoning and fluctuating feature that may undergo various changes throughout an individuals' entire teaching career (Klassen, Durksen & Tze, 2014). Thus, finding proper ways for sustaining teacher motivation and ameliorating it may prove to be the key to teaching creativity, efficacy and success. Nonetheless, it must also be borne in mind that teacher motivation is a context-bound and culture-specific attribute, and therefore, it might look unsound to look for a panacea for fostering teacher motivation regardless of cultural and contextual differences (Ho & Hau, 2014). Opfer (2014) takes the discussion of variability of teacher motivation still further and argues that it is rather dispositional and hence differs from one individual to another.

Leaving behind the discussion of whether teacher motivation is mostly situation-specific, culture-bound or individual-specific, now we may turn to pinpointing the factors that underlie teacher motivation. There is a good amount of consensus among researchers that teachers' sense of self-efficacy is a key determinant for teacher motivation (e.g. Ho & Hau, 2014; Klassen, Durksen, & Tze, 2014; Urdan, 2014).

Another major factor that is in interplay with teacher motivation is burnout. However, unlike self-efficacy which positively correlates with teacher motivation, burnout enjoys a negative correlation with it (Kunter & Holzberger, 2014; Roth, 2014). Burnout, as one of the principal constructs in the current study is defined by Maslach (1999) as "an individual stress experience that is embedded in a context of social relationships, and thus involves the person's conception of both self and others" (as cited in Durr, Chang, & Carson, 2014, p. 199). Maslach's burnout inventory (MBI) encompasses three interwoven components known as *emotional exhaustion, depersonalization,* and *reduced personal accomplishment.*

As Shin and Jang (2017, p. 5) contend, "Creativity has been widely researched in a variety of fields, primarily with an emphasis on individual characteristics such as intelligence, competency, motivation, knowledge, style, and personality." In their study on assessment of teachers' creativity evaluation skills, Benedek, et al. (2016), for instance, came across a positive correlation between teachers' creativity evaluation skills and their divergent thinking and creative achievement.

Jónsdóttir (2017) performed an action research to explore the factors that lead to producing more pedagogical creativity. Using a variety of data collection means including research group meetings, journals, reflective notes and student information, she found that the most domineering themes acting as constraints on the way of creative teaching were the amount of control in learning context and the degree of agency provided for learners. Though creativity has been explored in the light of different factors, we close this section by going over a number of studies on the role of self-efficacy in enhancing creativity and fostering creative behavior. Karwowski (2011), for instance, found a correlation between individuals' creative self-efficacy – "the belief that one has the ability to produce creative outcomes" (Tierney & Farmer, 2002, p. 1138, as cited in Hartley, Plucker & Long, 2016) – and their creative behavior. Abdollahzadeh and Rezaeian (2011, p. 15) are of the view that, "Although teacher efficacy is easily confused with actual teaching effectiveness, teachers' efficacy beliefs may underestimate, overestimate, or accurately reflect actual teaching effectiveness."

Dilekli and Tezci (2016) probed into the possible relationship among teachers' self-efficacy and their practices regarding teaching thinking skills as well as their teaching styles. Among the results obtained was the go-togetherness between teachers' self-efficacy and teaching styles.

Furthermore, Hartley, Plucker and Long (2016) probed into the go-togetherness between teachers' creative self-efficacy and

their evaluation of learner creativity. In their study which was carried out in the Chinese elementary school context, 60 teachers and 3623 students participated. The findings revealed a significant correlation between teachers' reported and real creative self-efficacy (CSE) ratings. Moreover, a significant difference was reported between teachers' perceptions of the degree to which they could embolden learners' CSE and their real classroom CSE.

Finally, in a meta-analysis of the research addressing creativity in educational contexts aimed at pinpointing the potential problems restricting teachers' creativity, Mullet, Willerson, Lamb and Kettler (2016) delved into an in-depth analysis of papers published in the 1999-2015 period. Investigating the findings of these studies, they found that teachers 1) mostly held restricted, inaccurate and unclear perceptions of creativity; 2) misconceived creativity as being characterized by behaviors such as social conformity, high mental ability, and artistic talent, while according to experts creative behavior is manifested by features such as nonconformity, flexibility, critical thinking, risk taking and the like; and 3) lacked the skills and abilities for assessment of creativity in learners.

As the succinct review of literature presented above helped reveal, though creativity has always constituted a major concern for instructors and researchers in different learning contexts, there is still no consensus among the researchers regarding the factors that may enhance teaching creativity. Furthermore, even variables like teacher motivation (Kunter & Holzberger, 2014), teachers' sense of self-efficacy (e.g. Ho & Hau, 2014; Klassen, Durksen, & Tze, 2014; Urdan, 2014), and burnout (Kunter & Holzberger, 2014; Roth, 2014) have been found to have a close relationship with teacher creativity, the degree to which these factors may predict creative behavior is still open to question. Thus, in an attempt to shed more light on the issue, the researchers in the current study probed the possible contribution of motivation, self-efficacy and burnout as regards creativity.

3. Method

3.1 Participants

The participants of the current study were 100 English language teachers in high schools in Tabriz, Maragheh, Ajabshir, Malekan and Urmia, cities from West and East Azerbaijan, Iran. At the outset of research, the researchers got the consent from Science and Research Center of Education as well as the teachers to conduct the study. Although 100 questionnaires were distributed among the teachers, the return rate was 92. Thus, the final analysis was run on these 92 safely returned questionnaires. The participants came from different age groups, with the lowest age being 20. Table 1 demonstrates frequencies and percentages of teachers in terms of age groupings.

Table 1: Descriptive Statistics Relevant to Teacher Participants' Age

	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-25	11	11.0	12.0	12.0
	26-30	20	20.0	21.7	33.7
	31-35	28	28.0	30.4	64.1
	Above 35	33	33.0	35.9	100.0
Total		92	100.0		

As Table 1 illustrates, 92 Iranian EFL high school teachers from different cities of Iran (Tabriz, Maragheh, Ajabshir, Malekan and Urmia) participated in the study. The frequencies of teacher participants with mean ages of 20-25, 26-30, and 31-35 were 11, 20 and 28, respectively, and the frequency of teachers above the age of 35 was 33. 62 females and 30 male teachers participated in the study. Table 2 cross-tabulates information regarding teachers' educational stand and teaching experiences. The total number of participants was 92 including 37 teachers with BA and 55 with MA and above.

Table 2: Cross Tabulation of Teachers' Teaching Experiences and their Degree

		Teaching experiences				
Education Stand		Below 5	6-10	11-15	Above 15	Total
	BA	9	8	9	11	37
	MA and above	18	20	6	11	55
	Total	27	28	15	22	92

3.2 Instrumentation

The main instruments utilized in the study were as follow:

Creativity Questionnaire: The first instrument used in the current study was Torrance's (2008) test of creative thinking (TTCT) which consisted of 60 items. Torrance (1979) defined creativity based on flexibility (production of ideas, the ability to see different possibilities of solving a problem), originality (producing unique and unusual ideas), fluency (presenting large amount of solutions to a problem) and elaboration (considering the details of an activity to enhance ideas). Out of the entire 60 items, 22 were related to fluency (items 1-22), 11 items tapped into elaboration

(items 23-33), 16 items measured originality (items 34-49), and 11 items were related to flexibility (items 50-60). Each item provided three possible choices for responses. The more the score is nearer to 100, the more the person is creative. The scores between 100-120 show the highest creativity, and the ranges of 85-100, 75-85, 50-75 and below 50 indicate higher creativity, medium creativity, low creativity and the lowest creativity, respectively. According to Almeida, Prieto, Ferrando, Oliveiraa, and Ferrandiz (2008) TTCT "is the most well-known and widely used test of measuring creativity" (p. 54). Furthermore, as Althuizen, Wierenga and Rossiter (2010) state, TTCT enjoys a good amount of predictive validity with an individual's subsequent achievement in life.

Teacher self-efficacy: Bandura's (1997) teacher self-efficacy questionnaire containing 30 items on five subscales ranging from (1= nothing to 5=great amount) was used to test teachers' self-efficacy (see Appendix A). Measuring the validity and reliability of Bandura's teacher self-efficacy scale with a sample of 280 Iranian teachers, Karbasi and Samani (2016) reported the result of factor analysis (KMO = 0.94 and Bartlett = 0.48), and found that alpha coefficient ranged between 77 and 83 for test-retest measure of reliability.

Teacher motivation: Hackman and Oldham's (1980) motivation questionnaire including 25 questions and 5 subscales was used to test teachers' motivation and their attitudes toward teaching in school environment (see Appendix B). The reliability and validity of the questionnaire were tested by several researchers, including Kardani (1986) who came up with the Cronbach value of .79 as to the reliability of the scale.

Teacher Burnout: Teacher Burnout Inventory (Maslach & Jackson, 1981, Appendix C) was used to measure three subscales of teacher Burnout: Emotional exhaustion (9 items), depersonalization (5 items), and reduced personal accomplishment (8 items). The questionnaire included 22 items and was based on a six-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree). Cronbach alpha for reliability of the questionnaire was found to be .78 and .81 in two investigations conducted by Filian (1992) and Karami Matin, Ahmadi, Irandoost, Babasafari and Rezaei (2014), respectively.

3.3 Data Collection Procedure

To conduct the study, the four mentioned questionnaires (Torrance's test of creativity, Bandura's (1997) teacher self-efficacy scale, Hackman and Oldham's (1980) motivation questionnaire, and Maslach and Jackson's (1981) teacher burnout inventory) were distributed among the study participants (100 English language teachers in high schools in Tabriz, Maragheh, Ajabshir, Malekan and Urmia). Before the administration of the questionnaires, consent was gained from Science and Research Center of Education as well as the teachers themselves. It's also worth noting that 92 questionnaires were returned and constituted the basis of final analysis.

3.4 Data Analysis

To analyze the data obtained from questionnaire administration, and to come up with cogent responses to study questions, a number of statistical analyses were run, including mainly Spearman rho correlation and structural equation modeling (SEM).

4. Findings

4.1 Findings Relevant to the First Three Research Questions

The first, second and third research questions of the study dealt with the possible relationship between high school teachers' self-efficacy, motivation and burnout, on the one hand, and their creativity, on the other. To estimate the correlation between variables, Spearman rho correlation (the nonparametric equivalent of Pearson correlation) was run. Tables 3 and 4 illustrate the descriptive data regarding the study variables and Spearman coefficient values of variables, respectively.

Table 3: Descriptive Statistics concerning the Study Variables

	Mean	Std. Deviation	Skewness	Kurtosis
Creativity	80.063	19.163	.068	-.403
Motivation	97.303	19.027	.822	.827
Self-efficacy	107.674	19.162	-.248	.129
Burnout	46.277	28.206	1.849	1.151

Table 4: Spearman Correlation Run on Study Variables

		Creativity	motivation	Self-efficacy	Burnout
Creativity	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.000			
	N	100			
Motivation	Correlation Coefficient	0.364**	1.000		
	Sig. (2-tailed)	0.000	0.000		
	N	100	100		
Self-efficacy	Correlation Coefficient	0.320**	0.069	1.000	
	Sig. (2-tailed)	0.001	0.493	0.000.	
	N	100	100	100	
Burnout	Correlation Coefficient	-0.311	-0.387**	-0.097	1.000
	Sig. (2-tailed)	0.002	0.000	0.339	0.000.
	N	100	100	100	100

In view of the obtained findings regarding the positive relationship between teachers' motivation and self-efficacy, on the one hand, and their creativity, on the

other, as well as the significant negative correlation between burnout and creativity, the first, second and third null hypotheses postulating no significant relationship between high school teachers' motivation, self-efficacy and burnout on the one hand, and their creativity, on the other, were rejected.

4.2 Findings Relevant to Research Question Four

The last research question put forth in the current study was after pinpointing the predictive power of motivation, self-efficacy and burnout for teacher creativity. Although correlation coefficient indicates the strength of relationship between variables, it doesn't give any information about the extent of changes in independent variable. To study the correlation among variables, Structural Equation Modeling (SEM) was utilized. One way to examine the appropriateness of data is via Kaiser-Mayer-Olkin (KMO) and Bartlet's test. The range of KMO should be between 0-1 and the more it is closer to 1, the more data are appropriate. The acceptable value for KMO should be above 0.6 (Pallant, 2007). Field (2009) reported that values greater than 0.5 are average and above 0.9 are superb.

Table 5: KMO and Bartlett's Test

Variables	KMO Bartlett's test			
		Chi-square	Df	Sig
Creativity	0.558	4579.141	1770	.00
Motivation	0.816	1845.846	325	.00
Self-efficacy	0.682	2036.932	435	.00
Burnout	0.880	2104.520	231	.00

PLS is a useful method for SEM when there is a limited number of participants and the data distribution is skewed (Wong, 2011, as cited in Guy-Soo, 2016). PLS-smart is able to represents reliability and validity of latent variables. Convergent validity is subcategory of construct validity. Hair Hult, Ringle, and Sarstedt (2013) state that the latent variables above .05 indicate appropriate convergent validity, and as seen in Table 6, the value of each variable is above .05.

Table 6: Convergent Validity of Study Variables

Variables	Mean Variance
creativity	.752
motivation	.649
Self-efficacy	..680
burnout	.689

To measure discriminant validity of constructs, Fornell-Larker criterion was used. It compares the root of convergent validity values with latent variable correlations. The square root of each construct's convergent validity should be greater than its highest correlation with any other constructs (Hair et al., 2013). He suggests that the square of convergent validity in each latent variable can be used to determine discriminant validity if this value is larger than other correlation values among latent variables. The logic of this method is that a construct shares more variance with its associated indicators than with any other constructs. Table 7 represents the results of Fornell-Larker criterion analysis.

Table 7: Fornell-Larker Criterion Analysis

	Burnout	Motivation	Self-efficacy	Creativity
Burnout	.391			
Motivation	.743	.615		
Self-efficacy	.365	.376	.562	
Creativity	.574	.610	.425	.478

Indicator reliability indicates the coefficient between latent and observed variable. It examines the reliability of observed variables or to what extent a specified variable shows the variable. The observed variable is reliable to the extent that it is higher than .7. Table 8 shows indicator reliability for study variables. As is seen, all the observed variables enjoy relative indicator reliability.

Table 8: Indicator Reliability of Observed Variables

Variable	Reliability	Variable	Reliability	Variable	Reliability	Variable	Reliability
burnout 1	0.598	motivation 14	0.787	SE24	0.680	creativity 29	0.618
burnout 2	0.543	motivation 15	0.785	SE25	0.636	creativity 30	0.715
burnout 3	0.545	motivation 16	0.729	SE26	0.678	creativity 31	0.697
burnout 4	0.851	motivation 17	0.725	SE27	0.734	creativity 32	0.729
burnout 5	0.714	motivation 18	0.637	SE28	0.679	creativity 33	0.784
burnout 6	0.748	motivation 19	0.659	SE29	0.784	creativity 34	0.774
burnout 7	0.772	motivation 20	0.555	SE30	0.731	creativity 35	0.809
burnout 8	0.716	motivation 21	0.832	creativity 1	0.776	creativity 36	0.483
burnout 9	0.727	motivation 22	0.739	creativity 2	0.769	creativity 37	0.609
burnout 10	0.703	motivation 23	0.674	creativity 3	0.705	creativity 38	0.655
burnout 11	0.752	motivation 24	0.624	creativity 4	0.708	creativity 39	0.724
burnout 12	0.758	motivation 25	0.643	creativity 5	0.780	creativity 40	0.780
burnout 13	0.773	SE1	0.539	creativity 6	0.656	creativity 41	0.660
burnout 14	0.781	SE2	0.698	creativity 7	0.584	creativity 42	0.772
burnout 15	0.593	SE3	0.772	creativity 8	0.783	creativity 43	0.698
burnout 16	0.631	SE4	0.687	creativity 9	0.584	creativity 44	0.860
burnout 17	0.664	SE5	0.620	creativity 10	0.506	creativity 45	0.736
burnout 18	0.709	SE6	0.708	creativity 11	0.777	creativity 46	0.794
burnout 19	0.616	SE7	0.622	creativity 12	0.767	creativity 47	0.757
burnout 20	0.742	SE8	0.768	creativity 13	0.529	creativity 48	0.736
burnout 21	0.684	SE9	0.763	creativity 14	0.581	creativity 49	0.761
burnout 22	0.857	SE10	0.795	creativity 15	0.638	creativity 50	0.596
motivation 1	0.629	SE11	0.630	creativity 16	0.699	creativity 51	0.619
motivation 2	0.684	SE12	0.796	creativity 17	0.730	creativity 52	0.715
motivation 3	0.657	SE13	0.634	creativity 18	0.646	creativity 53	0.746
motivation 4	0.748	SE14	0.596	creativity 19	0.695	creativity 54	0.729
motivation 5	0.615	SE15	0.899	creativity 20	0.658	creativity 55	0.796
motivation 6	0.786	SE16	0.620	creativity 21	0.760	creativity 56	0.608
motivation 7	0.719	SE17	0.868	creativity 22	0.654	creativity 57	0.865
motivation 8	0.745	SE18	0.684	creativity 23	0.735	creativity 58	0.730
motivation 9	0.725	SE19	0.668	creativity 24	0.753	creativity 59	0.538
motivation 10	0.788	SE20	0.658	creativity 25	0.847	creativity 60	0.558
motivation 11	0.417	SE21	0.715	creativity 26	0.782		
motivation 12	0.722	SE22	0.747	creativity 27	0.769		
motivation 13	0.759	SE23	0.679	creativity 28	0.639		

For internal consistency reliability, Cronbach's alpha was used. Cronbach's alpha reliability varies between 0 and 1. The value of .7 is acceptable in exploratory research. The results presented in Table 9 show that all the variables have appropriate internal consistency. Figure 1 illustrates the internal consistency of study variables in a schematic manner.

Table 9: Cronbach's Alpha Obtained for Internal Consistency

variables	Cronbach's alpha
Motivation	0.935
Burnout	0.945
self-efficacy	0.917
creativity	0.948

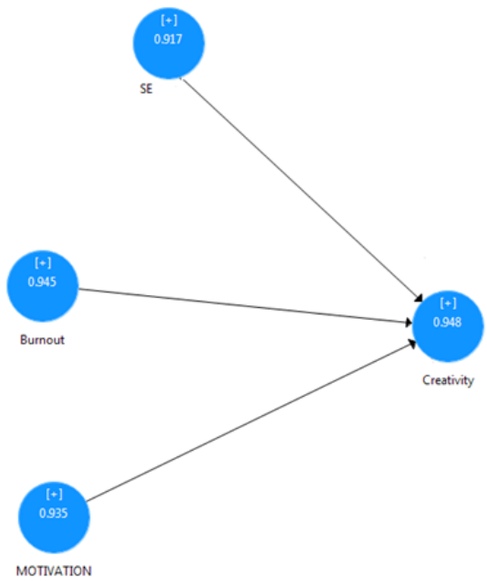

Figure 1: Internal Consistency of Variables

Structural Path Coefficient examines the model's predictive nature and the relationship between constructs. The estimation of path coefficient in the structural model is based on regression of each variable on its predictor. Estimation of structural model and path model is based on non-parametric approaches. Coefficient of Determination (R^2) is one way of determining model's predictive accuracy and is estimated by the squared correlation between specific endogenous construct's actual and their predictive values. As Table 10 represents, (R^2) = .547 and this shows higher value of creativity. It means that endogenous variables are effective in demonstrating exogenous latent variables.

Table 10: Coefficient of Determination of Creativity

Variable	R2
Creativity	0.547

Effect size demonstrates the change in R^2 and measures both the direct effect of one construct on the other and its indirect effects via one or more mediating constructs (Heir, Hult, Ringle, & Sarstedt, 2013). The value of effect size ranges between .02 (small), .15 (medium) and 0.35 (large).

Table 11: Significance Testing Results of the Structural Model Path Coefficient

Effect Size	Variables
Burnout	0.162
Motivation	0.041
Self-efficacy	0.135

Figure 2 illustrates the relationship among the study variables in structural equation modeling.

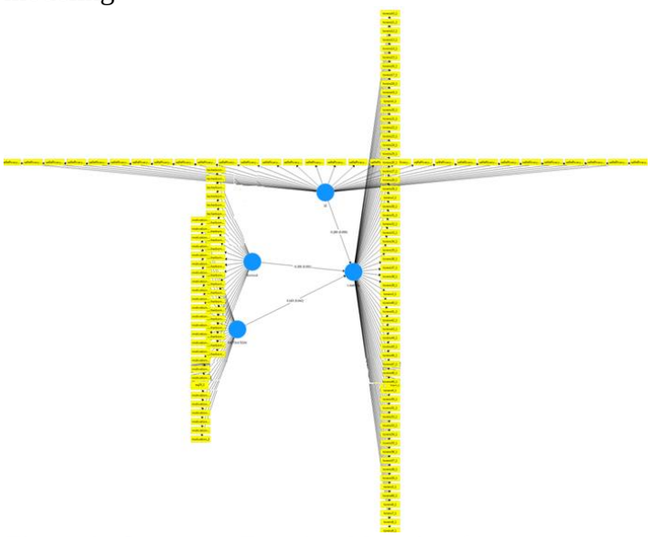

Figure 2: Structural Equation Modeling for the Study Variables

In Figure 2, circles show independent (latent) variables and rectangles indicate items defining the construct. Indices of convergent validity show the relationship between latent variables and the items that define it and R^2shows the effect size of independent variables on dependent variable and at the same time the impact of each one of the items on the construct.

5. Discussion

Educational system of a country is at the heart of its entire attempts toward success, and teachers are supposed to play a major part in this burgeoning movement. As stated earlier, teachers' sense of creativity is among the key determiners of their success in educational arena. Recently too much attention has been paid to creativity (e.g., Chan & Yuen, 2014; Lin, 2014) as an important factor in educational development. Despite the importance of teacher creativity, there is little research considering effective factors impacting on it. Thus, the current study delved into the potential relationship between teacher creativity, on the one hand, and their motivation, self-efficacy and burnout, on the other.

With regard to the first research question investigating the relationship between high school teachers' motivation and their creativity, a positive significant correlation was found between the two variables. This finding substantiates the claim made by Kunter and Holzberger (2014) regarding the crucial role of teachers' intrinsic motivation in producing more creativity and instructional innovation. Though intrinsic motivation is purportedly a stronger predictor of teaching creativity and

successful practice of teaching (e.g. Keller, 2011; Klusmann, 2013; Kunter & Holzberger, 2014), the role played by extrinsic motives such as praise, attention and compliments must not be overlooked (Blasé & Kirby, 1992, cited in Whitaker, Whitaker & Lumpa, 2013).

As to the second research question which probed the potential relationship between high school teachers' self-efficacy and their creativity, the results pointed to a significant positive correlation between the two variables for teachers. This is in line with Karwowski's (2011) claim as to the correlation between individuals' self-efficacy and their creative behavior. It also provides support for Dilekli and Tezci (2016) finding concerning the relationship between teachers' self-efficacy and their use of creative teaching styles. This finding also corroborates the result obtained by Hartley, Plucker and Long (2016) who claimed the correlation between teachers' creative self-efficacy and their evaluation of learner creativity.

In addition, as regards the third research question, the findings pointed to a significant, yet negative, correlation between high school teachers' burnout and their creativity. This finding may provide partial support for studies like Kunter and Holzberger (2014) and Roth (2014), in which the researchers claimed the significant negative correlation between teachers' burnout levels and their teaching motivation. This claim is made on account of the fact that in the current study motivation was found to significantly correlate with teacher creativity.

Finally, the findings obtained for the fourth research question, which investigated the predictive power of teacher motivation, self-efficacy and burnout for their creativity, indicated that all three variables acted as equally potential predictors for teacher creativity.

6. Conclusion and Implications

The researchers in the current study strived to redirect attention to the long-established notion of creativity via observing teacher creativity in the light of motivation, self-efficacy and burnout. Though the positive correlation between teacher creativity, on the one hand, and their motivation and self-efficacy, on the other, as well as the negative correlation between burnout and creativity, were established through the findings of the study, further scrutiny is required to corroborate the findings obtained by the current researchers.

In the wake of the current century, Richards and Rogers (2001) called teachers and teacher trainers' attention toward the focal role of creativity in teaching, maintaining that teachers "need to be able to use approaches and methods flexibly and creatively based on their own judgment and experience. In the process, they should be encouraged to transform and adapt the methods they use to make them their own" (p. 250). Now, the main question is how much we have been able to approach and implement creative practice of teaching throughout the recent years. As browsing the relevant literature in the current study helped reveal, though attention to creativity in teaching has been revitalized in the current decade, more attempts are required to bring about further indoctrination and institutionalization of the concept of creativity in pedagogy.

To tackle the issue in a proper way, our endeavors aimed at opening up the space for creative practice of teaching must be organized along the following lines. First and foremost, teachers as the principal agents of change should be trained in how to apply creativity in teaching. As Hall and Simeral (2008, p. 9) state, teachers tend to "suppress their creative intellect and ignore their prior training in order to follow a lockstep, one-size-fits-all instructional program." This may be so because most teachers feel more at ease with the already-familiar and practiced teaching methods and techniques and are reluctant to implement novelty and creativity, which may at times prove to be endangering their career. Indeed, a major impediment limiting teachers' creativity is their "over-reliance on methods and the view that lessons can be looked at as a series of 'plannable' mini-episodes" (Pugliese, 2016, p. 21).

Furthermore, as Mullet, et al's (2016) meta-analysis of research on creativity revealed, teachers mostly hold restricted, inaccurate and unclear perceptions of creativity, misconceive the meaning of creativity and lack the skills and abilities required for assessment of creativity in learners. Thus, to bring about successful practice of creative teaching, the first step might be empowering teachers by giving them knowledge and awareness of what creativity entails and how it can be implemented.

Second, the constraints thwarting creative practice must be removed to enhance creative teaching. Though some of the constraints are personal, the majority as

Nguyen and Wlakinshaw (2018) maintain, are institutional, structural and contextual. Among such extrinsic restraints, mention can be made of the limitations imposed on teachers on the part of prescribed curricular and evaluative regulations. Textbooks, too, may bring about such restrictions for teachers. In this regard, Hall (2011) is of the view that textbooks mostly disregard individual needs and restrain learner creativity. Maley (2016), on the other hand, raises a different argument claiming that constraints also bring about more creative practice of teaching. The logic behind his statement is that "when we are forced to work with limited resources, or within a rigid set of rules, we are stimulated to find creative solutions" (p. 12).

Last but not least, learners must be made familiar with creative learning practice. Creative behavior of teachers and their interest in implementing creative methodologies, can in turn, enhance learners' creativity. As Soh (2017) contends, creativity is a behavioral trait that can be enhanced through the practice of social modelling (the emulation of teacher's creative behavior), reinforcement (providing rewards for learners as they behave creatively) and classroom ecology (enthralling learners in a social context which is laden with creativity).

After all, we ought to subscribe to the view that "creativity is a multi-faceted quality, which may be why it has proved so difficult to define" (Maley, 2016). To embark on successful practice of creative teaching, it seems we first need to demystify the concept by removing the misconceptions, wrong beliefs and myths surrounding it (Pugliese, 2016). In so doing, the cooperation of all teachers, teacher trainers and institutional/educational administrators is called for.

References

Abdollahzadeh, E., & Rezaeian, S. (2011). An investigation of collective teacher efficacy and teacher self-efficacy subscales in the EFL context of Iran. *Journal of Research in Applied Linguistics, 2*(1), 14-28.

Bandura, A. (1997). *Self-efficacy in Changing Societies*. Cambridge: Cambridge University Press.

Benedek, M., Nordtvedt, N., Jauk, E., Koschmieder, C., Pretsch, J., Krammer, G., & Neubauer, A.C. (2016). Assessment of creativity evaluation skills: A psychometric investigation in prospective teachers. *Thinking Skills and Creativity, 21*, 75-84.

Chan, S., & Yuen, M. (2014). Personal and environmental factors affecting teachers' creativity-fostering practices in Hong Kong. *Thinking Skills and Creativity, 12*, 69-77.

Dilekli, Y., & Tezci, E. (2016). The relationship among teachers' classroom practices for teaching thinking skills, teachers' self-efficacy towards teaching thinking skills and teachers' teaching styles. *Thinking Skills and Creativity, 21*, 144-151.

Durr, T., Chang, M.-L. Carson, R.L. (2014). Curbing teacher burnout: The transactional factors of teacher efficacy and emotion management. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 198-213). London, England: Routledge.

Field, A. (2009). *Discovering Statistics using SPSS*. Sage: London.

Filian, A. (1992). *Burnout syndrome and its association with coping mechanisms in Iranian nurses*. Doctoral Dissertation, Tarbiat Modares University, Tehran, Iran.

Hall, G. (2011). *Exploring English language teaching: Language in action*. London, England: Routledge.

Hall, P., & Simeral, A. (2008). *Building teachers' capacity for success: A collaborative approach for coaches and school leaders*. Alexandria: Association for Supervision and Curriculum Development.

Hartley, K.A., Plucker J.A., & Long, H. (2016). Creative self-efficacy and teacher ratings of student creativity in Chinese elementary classrooms. *Thinking Skills and Creativity, 22*, 142–151.

Heir, J.F., Hult, G.T., Ringle, C.H & Sarstedt, M. (2013). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). SAGE. Los Angles. London. New Delhi.Singapore. Washington.

Ho, I.T., & Hau, K.-T. (2014). East meets west: Teacher motivation in the Chinese context. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 133-149). London, England: Routledge.

Jónsdóttir, S.R. (2017). Narratives of creativity: How eight teachers on four school levels integrate creativity into teaching and learning. *Thinking Skills and Creativity, 24*, 127–139.

Karami Matin, B., Ahmadi, S., Irandoost, S.F., Babasafari N., & Rezaei, S. (2014). The prevalence of burnout and its association with types of capital among female nurses in West of Iran. *Jundishapur Journal of Health Science, 6*(3), 1-4.

Karbasi, S., & Samani, S. (2016). Psychometric properties of teacher self-efficacy scale. *Procedia - Social and Behavioral Sciences, 217*, 618 – 621.

Karwowski, M. (2011). Doesn't hurt to ask … But sometimes it hurts to believe: Polish students' creative self-efficacy and its predictors. *Psychology of Aesthetics, Creativity, and the Arts, 5*(2), 154–164.

Karwowski, M., Gralewski, J., & Szumski, G. (2015). Teachers' effect on students' creative self-belief is moderated by students' gender. *Learning and Individual Differences*, *44*, 1-8.

Klassen, R.M., Durksen, T.L., & Tze, V.M.C. (2014). Teachers' self-efficacy beliefs: Ready to move from theory to practice? In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 100-115). London, England: Routledge.

Kunter, M., & Holzberger, D. (2014). Research on teachers' intrinsic orientations. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 83-99). London, England: Routledge.

Maley, A. (2016). Creativity: The what, the why and the how. In D. Xerri, & O. Vassallo (Eds.), *Creativity in English language teaching*. (pp. 9-18). Malta: Progress Press.

Montijano Cabrera, M.P. (2014). Textbook use training in EFL teacher education. In J.D. Martínez (Ed.), *English as a foreign language teacher education: Current perspectives and challenges* (pp. 267-286). Amsterdam: Rodopi.

Mullet, D., Willerson, A., Lamb, K., & Kettler, T. (2016). Examining teacher perceptions of creativity: A systematic review of the literature. *Thinking Skills and Creativity*, *21*, 9-30.

Nakata, Y. (2011). Teachers' readiness for promoting learner autonomy: a study of Japanese EFL high school teachers. *Teaching and Teacher Education*, *27*, 900-910.

Nguyen, X.N.C.M., & Wlakinshaw, I. (2018). Autonomy in teaching practice: Insights from Vietnamese English language teachers trained in Inner-Circle countries. *Teaching and Teacher Education*, *69*, 21-32.

Nicholas, H., & Starks, D. (2014). *Language education and applied linguistics: Bridging the two fields*. London, England: Routledge.

Nunan, D. (2013). *Learner-centered English language education: The selected works of David Nunan*. London, England: Routledge.

Opfer, V.D. (2014). Section commentary: Teacher career trajectory. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 214-226). London, England: Routledge.

Pallant, J. (2007). SPSS Survival Manual. A step-by-step Guide to Data Analysis Using SPSS Version 15.

Pugliese, C. (2016). Creativity in the classroom: From a pedagogy of certainties to a pedagogy of possibilities. In D. Xerri, & O. Vassallo (Eds.), *Creativity in English language teaching*. (pp. 19-23). Malta: Progress Press.

Richards, J.C. (2013). Creativity in language teaching. *Iranian Journal of Language Teaching Research*, *1*(3), 19-43.

Richards, J.C., & Rodgers, T.S. (2001). *Approaches and methods in language teaching* (2nd edition). Cambridge: Cambridge University Press.

Roth, G. (2014). Antecedents and outcomes of teachers' autonomous motivation: A self-determination theory analysis. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 36-51). London, England: Routledge.

Shin, N., & Jang, Y-J. (2017). Group creativity training for children: Lessons learned from two award-winning teams. *The Journal of Creative Behavior*, *51*(1), 5–19.

Soh, K. (2017). Fostering student creativity through teacher behaviors. *Thinking Skills and Creativity*, *23*, 58-66.

Tajeddin, Z., & Askari, H. (2016). (Non)native Language Teachers' Cognitions: Are They Dichotomous? *Journal of Research in Applied Linguistics*, *7*(1), 3-29.

Urdan, T. (2014). Concluding commentary: Understanding teacher motivation, what is known and what more is to learn. In P.W. Richardson, S.A. Karabenick & H.M.G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 227-246). London, England: Routledge.

Whitaker, T., Whitaker, B., & Lumpa, D. (2013). *Motivating and inspiring teachers: The educational leader's guide for building staff morale* (2nd edition). London, England: Routledge.

Williams, M., & Burden, R.L. (1997). *Psychology for language teachers: A social constructivist approach*. Cambridge: Cambridge University Press.

Xerri, D., & Vassallo, O. (2016). Creativity in ELT: An introduction. In D. Xerri, & O. Vassallo (Eds.), *Creativity in English language teaching*. (pp. 1-7). Malta: Progress Press.

Appendix A: Bandura's (1997) Teacher Self-efficacy Scale

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinions about each of the statements below by circling the appropriate number. Your answers will be kept strictly confidential and will not be identified by name.

1 2 3 4 5 6 7 8 9
Nothing Very Little Some Influence Quite a Bit A Great Deal

Efficacy to Influence Decision making
How much can you influence the decisions that are made in the school?
How much can you express your views freely on important school matters?

Efficacy to Influence School Resources
How much can you do to get the instructional materials and equipment you need?

Instructional Self-Efficacy
How much can you do to influence the class sizes in your school?
How much can you do to get through to the most difficult students?
How much can you do to promote learning when there is lack of support from the home?
How much can you do to keep students on task on difficult assignments?
How much can you do to increase students' memory of what they have been taught in previous lessons?
How much can you do to motivate students who show low interest in schoolwork?
How much can you do to get students to work together?
How much can you do to overcome the influence of adverse community conditions on students' learning?
How much can you do to get children to do their homework?

Disciplinary Self-Efficacy
How much can you do to get children to follow classroom rules?
How much can you do to control disruptive behaviour in the classroom?
How much can you do to prevent problem behaviour on the school grounds?

Efficacy to Enlist Parental Involvement
How much can you do to get parents to become involved in school activities?
How much can you assist parents in helping their children do well in school?
How much can you do to make parents feel comfortable coming to school?

Efficacy to Enlist Community Involvement
How much can you do to get community groups involved in working with the schools?
How much can you do to get churches involved in working with the school?
How much can you do to get businesses involved in working with the school?
How much can you do to get local colleges and universities involved in working with the school?

Efficacy to Create a Positive School Climate
How much can you do to make the school a safe place?
How much can you do to make students enjoy coming to school?
How much can you do to get students to trust teachers?
How much can you help other teachers with their teaching skills?
How much can you do to enhance collaboration between teachers and the administration to make the school run effectively?
How much can you do to reduce school dropout?
How much can you do to reduce school absenteeism?
How much can you do to get students to believe they can do well in schoolwork?

Appendix B : Job Motivation Survey (Hackman & Oldham, 1980)

1. I have almost complete responsibility for deciding how and when the work is to be done.
2. I have a chance to do a number of different tasks, using a wide variety of different and talents.
3. I do a complete task from start to finish. The results of my efforts are clearly visible and identifiable.
4. What I do affects the well-being of other people in very important ways.
5. My manager provides me with constant feedback about how I am doing.
6. The work itself provides me with information about how well I am doing.
7. I make insignificant contributions to the final product or service.
8. I get to use a number of complex skills on this job.
9. I have very little freedom in deciding how the work is to be done.
10. Just doing the work provides me with opportunities to figure out how well I am doing.
11. The job is quite simple and repetitive.
12. My supervisors or co-workers rarely give me feedback on how well I am doing the job.
13. What I do is of little consequence to anyone else.
14. My job involves doing a number of different tasks.
15. Supervisors let us know how well they think we are doing.
16. My job is arranged so that I do not have a chance to do an entire piece of work from beginning to end.
17. My job does not allow me an opportunity to use discretion or participate in decision making.
18. The demands of my job are highly routine and predictable.
19. My job provides few clues about whether I'm performing adequately.
20. My job is not very important to the company's survival.
21. My job gives me considerable freedom in doing the work.
22. My job provides me with the chance to finish completely any work I start.
23. Many people are affected by the job I do.

Appendix C: Maslach Burnout Inventory

1. I feel emotionally drained from my work.
2. I feel used up at the end of the work day.
3. I feel fatigued when I get up in the morning and have to face another day on the job
4. Working with people all day is really a strain for me.
5. I feel burned out from my work.
6. I feel frustrated by my job.
7. I feel I'm working too hard on my job.
8. Working with people directly puts too much stress on me.
9. I feel like I'm at the end of my rope.
10. I can easily understand how my recipients feel about things.
11. I deal very effectively with the problems of my recipients.
12. I feel I'm positively influencing other people's lives through my work.
13. I feel very energetic.
14. I can easily create a relaxed atmosphere with my recipients.
15. I feel exhilarated after working closely with my recipients.
16. I have accomplished many worthwhile things in the job.
17. In my work, I deal with emotional problems very calmly.
18. I feel I treat some recipients as if they were impersonal 'objects'
19. I've become more callous toward people since I took this job.
20. I worry that this job is hardening me emotionally.
21. I don't really care what happens to some recipients.
22. I feel recipients blame me for some of their problems.