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Teacher well-being and innovation with information and communication technologies; proposal for a structural model

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Abstract The fundamental objective of the study presented in this article is to formulate a theoretical model with an empirical base that identifies the factors associated with the well-being of teachers, when they tackle processes of educational innovation mediated by the use of the information and communication technologies (ICT). Subjective well-being is an area of study of social psychology linked to the studies into "happiness" or "satisfaction with life" and constitutes an increasingly broad theoretical body. A questionnaire was produced, based on the scientific foundations that support the proposed model, and its validity and reliability have been established. The population and sample is made up of 322 teachers from non university centres that carry out innovative experiences with ICT in four Regions of Spain. The results obtained confirm five latent variables that explain the teacher well-being associated with innovation practices in ICT: (1) values/projects, (2) motivation, (3) competences, (4) satisfaction and (5) emotions. An explanatory structural model of teacher well-being is empirically validated. These findings could be of interest in identifying and promoting the relevant keys that help to improve the emotional states of working teachers.

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1 Introduction

Teachers, as a subject of investigation, are an indispensable reference in studies into education. The approach into emotional aspects of the faculty has given rise to different lines of research. 'Teacher well-being' is a relatively recent trend in research, following focus on 'teacher uneasiness'. The first scientific works on teacher uneasiness were researched in the nineteen seventies; these focused on its consequences related to emotional exhaustion and the decrease of the teacher's professional achievements (Cornejo and Quiñonez 2007). It was in the nineties that scientific interest in teacher well-being began. This line of work is related to and concomitant with the psychological studies into "happiness" or "satisfaction with life". Within this trend, the concept of "subjective well-being" has arisen within the area of social psychology.

From a psychological perspective, scientific effort centred on identifying factors that explain this emotional state to establish theoretical models, as well as to build instruments that allow it to be measured. Today, the output in this regard shapes an entire scientific body that some authors have named the science of subjective well-being (Eid and Larsen 2008). Nevertheless, both lines of research coincide in their interest in investigating the emotional states of teachers.

From an educational point of view, teacher well-being has been the object of analysis and reflections in recent years (Marchesi 2007; Hué 2008; Carrasco and Bernal 2008) as well as of research programs (Verhoeven et al. 2003). The observation that educational activity generates depression and exhaustion in some teachers, while others continue to be motivated and exciting, leads these authors to establish relationships between good practice and teacher well-being. Frequently, innovative teachers show professional satisfaction and pleasure in their initiatives (Carrasco and Bernal 2008, p. 407). Therefore, perhaps the keys to preventing teacher uneasiness and to motivate positive feelings reside in good practice.

2 Current status of research for teacher well-being

Teacher well-being is scientifically linked to the construct "subjective well-being", which comes from the field of social psychology. In this sense, the scientific panorama is made up of three preferred lines of work. One of these is interested in producing theories that serve as a reference framework from which to project empirical studies about explanatory variables of subjective well-being. Basically, there are three theoretical explanatory models that bring together the bulk of the research foci that are currently being carried out (Eid and Larsen 2008). The *contextual variable model*, states that subjective well-being depends on external conditions that are linked to the context. From this model, teacher well-being could be conditioned by culture and the atmosphere contributed by the educational context. This orientation accommodates a fruitful line of works, which centres on analyzing external variables, which affect the quality of life and therefore have a direct impact on subjective well-being. This line of work has given rise to numerous research that link subjective well-being with economic variables (Fuentes and Rojas 2001; Quintero and González 1997; Hagerty et al. 2001). A reflection of this trend is the creation, in

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1974, of the *Social Indicators Research*, a journal that specialises in the study of quality of life and personal well-being with a strong economist tradition. This approach to the study of well-being resulted in the development of categorization and objective indicators of quality of life that have assimilated social well-being (in fact economic well-being).

The *psychological model* suggests an opposing position, with the personal characteristics of the subjects being the key to subjective well-being. In this line, there has been abundant scientific output, from a psychological perspective, attempting to identify the personality variables related to subjective well-being. The results obtained appear to find certain relationships between extroversion and subjective well-being (Harris and Lightsey 2005). Psychological research explores other variables such as personal autonomy, control of the context, life objectives, etc. (Sanchez et al. 2003; Carr 2007; Harris and Lightsey 2005). That is to say, subjective well-being depends on factors linked to the characteristics of the personality of the subject. Finally, there is the *interactionist model* that interprets subjective well-being as a relationship between personal factors and situational characteristics. The first two have been the object of a greater number of empiric investigations, whilst the latter model has scarcely been researched.

From a methodological point of view, one of the areas to which most attention has been paid is the measuring of the subjective well-being construct. This has required that its internal structure be suggested, theoretically exploring the weight of relevant variables. Due to this, efforts have been aimed at identifying relevant domains and deriving explanatory indicators for well-being from them, with the objective of constructing and validating scales for the measurement of this construct. Today there are very diverse scales with regard to the field of application (Steger et al. 2006; Diener et al. 1985; Samman 2007; Veerhoven 2007).

To complete the status of the question, we must not forget that this construct has been explored generally, associating it with quality of life, and in more reduced areas, such as satisfaction with work, and even at a more individual level generating the concept of personal well-being. These areas of action have led to a methodological diversification in their measurement, since in one or the other case the most relevant variables or factors have been different. Teacher well-being therefore, constitutes an area of well based and specific research (Ribes et al. 2008) that needs its own approach.

3 The study of teacher well-being

The knowledge produced about the teacher well-being construct is supported by a scientific body that uses procedures aimed at its identification; something that always takes place in the professional context of the teacher. From a conceptual point of view, subjective well-being (personal and psychological) refers to the "cognitive estimation of the degree of satisfaction with their own life, and this satisfaction is expressed or summed up in the correspondence between goals obtained and goals desired. For others, the emotional component is the nucleus of the subject's satisfaction with their current life, when comparing this with their adjustment in the past" (Quintero and González 1997, p. 129). This, or similar definitions, serve for more recent authors (Eid and Larsen 2008) to extract references with which to measure well-being. Three dimensions are identified: one is emotional, another appraisal, and finally projective (objectives to reach certain goals or to obtain achievements). However, these dimensions have interdependent relationships. Thus, the positive or negatives emotions are closely related to the goals or with the personal projects of the teachers. Therefore, for these emotions to exist, it is necessary that there is a purpose, an objective to

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achieve. On the other hand, a cognitive/evaluative process is needed, which relates proposed goals to achievements reached. The result of this process produces the emotions; positive if the objectives are achieved and negative if the goals are not reached. Motivation occupies a relevant place within this explanatory framework, since this is the engine to start the action required to achieve the proposed objectives. Studies of the subject (Carr 2007; Marchesi 2007; Marques 2008) point to the fact that intrinsic motivation is a factor clearly associated with teacher well-being. Teachers who have an intrinsic motivation show more interest, more enthusiasm and more confidence with regard to their teaching tasks. They also present superior performance, more perseverance and more creativity. Consquently, their self-esteem and well-being are also greater. On the other hand, intrinsic motivation is related to the levels of ability to be able to perform a specific activity. In turn, a greater ability produces positive emotions and a poorer ability gives rise to anxiety, concern and apathy.

From a professional perspective, there is certain unanimity in considering that work satisfaction is a dimension made up of several factors. Traditionally, those related to external motivation such as: financial remuneration, professional promotion, autonomy, etc., were considered key factors. These factors were included within the extrinsic motivations, and subsequently intrinsic motivations were incorporated into the research.

Cummins et al. (2007) reviewed about one thousand, five hundred studies, identifying seven common domains linked to work satisfaction: material goods (economic remuneration), health, autonomy, productivity, emotional well-being, interpersonal work relationships and security. Hulin and Judge (2003) carried out a conceptual exploration and concluded that this was a multidimensional response to the profession. This includes one cognitive component (evaluative), another emotional, and another behavioural, with the result that some empirical studies have demonstrated that professional attitudes are related to professional behaviour. More recent lines of research into professional satisfaction (Judge and Klinger 2008) incorporate the emotional dimension as a latent feature of this construct and are aimed at investigating the variables that produce, or are related to, professional satisfaction. Therefore, we can say that the emotional, attitude and cognitive dimensions are intimately related to this construct.

In summary, research into well-being in the professional context has shed light onto domains and underlying aspects, which are of great value when it comes to producing instruments for the evaluation of teacher well-being.

4 Teacher well-being and innovation with ICT

If the body of knowledge about internal factors linked to professional well-being is accepted as valid, it is possible to redirect it towards areas of educational interest, with the objective of improving professional conditions and the occupational health of the teacher. One of the more current lines of work into subjective well-being refers to specific areas of activity (Samman 2007). There is no doubt about the interest that the study of subjective well-being could have when applied to the teaching context (Ribes et al. 2008). For this task, the direct application of non-specific instruments is insufficient and therefore, the production and validation of instruments adapted for this objective becomes necessary, as well as the formulation of theoretical, empirically proven models that let us see the factors that explain teacher well-being, in the previously identified areas of activity. The states of well-being seem to be associated with activities of innovation (creation). The processes of innovation imply actions and/or creative activities that are guided by educa-

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tional goals and that demand an intrinsic motivation. That is to say, a theoretical model of teacher well-being can be traced in innovation processes. Therefore the innovative teachers are the best subjects to observe and through whom to verify the dimensions underlying this construct, as well as to validate the relationship between innovation and states of well-being.

To carry out this task, it is necessary to know and identify the factors of teaching activity associated with the well-being of the teachers. The relative lack of knowledge in this area, along with the lack of development of instruments to evaluate teacher well-being, led us to suggest this work. Its fundamental objective is to formulate a theoretical model, with an empiric base, which identifies the factors that explain the well-being of the teachers when they tackle educationally innovative processes, mediated by the use of information and communication technologies (ICT).

The theoretical contributions about subjective well-being taken into the field of innovative teaching have allowed us to propose a conceptual model that is useful, not only as a guide for the design of measurement techniques, but also for their empiric confirmation. The model we propose (see Fig. 1) serves as a base for the validation of the measuring instrument produced, as well as for the empiric validation of the theoretical model that sustains it.

This model includes three dimensions which scholars in the subject (Steger et al. 2006; Samman 2007; Judge and Klinger 2008) have found to be related to well-being: emotional, appraisal and projective (aimed at reaching certain goals or achievements). These variables are interrelated, as indicated in the model; within this model, the internal structure of the subjective well-being construct can be visualised. It is framed by four axes: *the impeller axis* of innovation in this case, is made up of: (a) projects and values, and, (b) motivations. The second axis refers to the *favourable conditions for the ICT innovation to be successful*. This is made up of the competencies of the teacher and the climate and culture of the centre. The third axis has a more internal/personal and subjective character, involving an evaluative dimension that produces an emotional effect which, in turn, produces satisfaction and emotions that finally lead to teacher well-being.

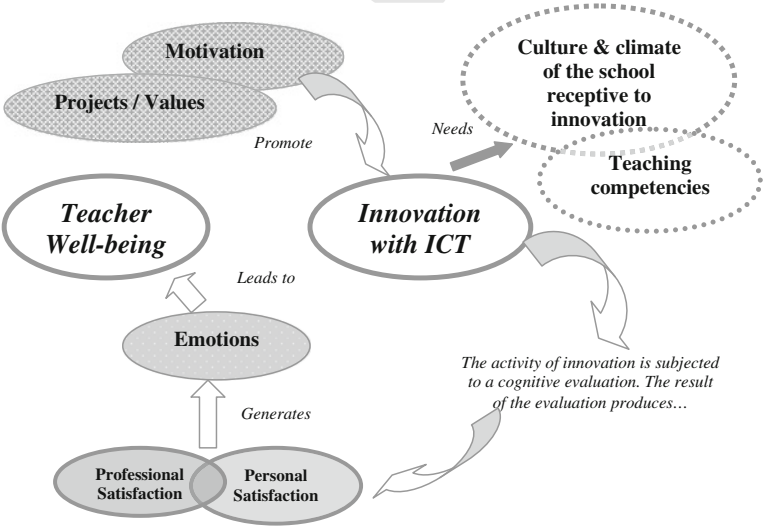

Fig. 1 Theoretical model about teacher well-being generated by innovation with ICT (De Pablos et al. 2011©)

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5 Purpose of the study

The fundamental purpose of this work is to empirically validate the theoretical model presented here, starting with the data obtained using a questionnaire produced 'ad hoc' to detect the teacher well-being of those teachers who use good practice or innovations with ICT in primary and secondary schools (De Pablos et al. 2011).

6 Methodology

6.1 Designing a questionnaire on teacher well-being

Designing a questionnaire was supported by an exhaustive review of the literature on the construct "subjective well-being", and specifically on factors related to the educational contexts. The scale was structured into seven dimensions that were developed into 66 items. These dimensions, presented in a previous work (De Pablos et al. 2008), are the following: *motivations* that lead to innovation or good practice with ICT; *life-professional values* that guide the activity of innovation with ICT; *competencies* necessary for the success of projects that include the use of ICT; *emotions* associated with ICT innovation; *personal satisfaction* gained by the culmination of ICT innovation projects; *satisfaction within the professional context* with regard to the receptivity of innovation based on the use of ICT and *culture and identity of the schools*. This is to find out whether the context of the educational centre participates in an innovative culture and identity.

6.2 Characteristics of the sample

A total of 322 questionnaires were presented within four Regions of Spain (Andalusia, Extremadura, the Basque country and the Canaries), specifically in primary and secondary schools. From the total of responses obtained, 59.5% of these were from women and 40.5% from men. 65.7% of the teachers taught at the infantile and primary educational level, 27.7% at the secondary level, and 6.6% at vocational training schools.

6.3 Procedure

The collection of data with this questionnaire was carried out at centres that develop innovation projects with ICT in the four above-mentioned Regions. These were selected by the advisers of the Teacher Training Centres, or their equivalents, within the various Regions of Spain.

7 Results

7.1 Analysis of the reliability of the questionnaire and the sub-scales

To determine the degree of reliability of the questionnaire, Cronbach's Alpha coefficient was applied. The reliability coefficient of the questionnaire, as a whole, was found to be 0.880. This value indicates that the level of reliability of the questionnaire is good. The table displayed below shows the value of this coefficient, organised from higher to lower, for each one of the sub-scales that made up the questionnaire (Table 1):

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Table 1 Analysis of reliability of the questionnaire (Cronbach's Alpha)

Dimension		Cronbach's Alpha	
1.	*Competences* necessary to carry out projects with ICT (6 items)	0.911	
2.	*Personal Satisfaction* gained by the educational use of ICT (9 items)	0.837	
3.	*Satisfaction with the professional context* with regard to the reception of innovations based on the use of ICT (6 items)	0.825	
4.	*Projects-life-professional values* that guide the initiative of the teacher to innovate with ICT (7 items)	0.806	
5.	*Motivations* that lead to innovation with ICT (12 items)	0.716	
6.	*Culture and identity of the school* where teacher works (9 items).	0.707	
7.	*Emotions* associated with carrying out innovation projects with ICT (10 items)	0.501	Emot.+ 0.770 Emot.− 0.538

As can be seen, all the dimensions making up the questionnaire are found within the values that vary from acceptable (0.707) to very good (0.911), except the dimension "*emotions*", associated with carrying out innovation projects. This sub-scale has a reliability of 0.501, which is below the minimum value required for its acceptance as valid (0.600). One possible explanation could be that five items are included in this scale, which refer to positive emotions and a further five items about negative emotions. To confirm the effect of the composition of this scale, we analysed the reliability by taking it as two differentiated scales, one referring to positive emotions and the other to negative. The results obtained appear to confirm our hypothesis, as the Cronbach's Alpha obtained for the scale of positive emotions was 0.770, while the scale of negative emotions remains at a low level (−0.538). This confirmation suggests that the reliability of the scale increases the more homogenised the type of emotions. Therefore, as a conclusion, we can affirm that the questionnaire, as a whole, has a good level of reliability, as do the sub-scales from which it is made up.

8 Discussion

8.1 Results of the exploratory factor analysis

To determine the internal validity of the questionnaire, we performed an exploratory factor analysis of the main components. Previously, the Káiser-Meyer-Olkin sampling adjustment test and the Barlett square test were applied to the data, in order to check the relevancy of performing the exploratory factor analysis. The result obtained in the first test was 0.802 and in the Barlett a Chi-square = 5825.277, gl = 1,711 and Sig = 0.000 were obtained, which indicated that it was pertinent to proceed to the factor analysis.

The exploratory factor analysis applied to the questionnaire provided a total of 14 factors that explain 68.473% of the total for the variance. The level of significance in each one of the factors was $p = 0.000$. To guarantee the quality of the explanatory variables of each factor, we followed the recommendations in the specialised literature: (a) The factors with four or more saturations above 0.60 can be considered reliable independent of the sample size, (b) factors with 10 or more low saturations (around 0.40) are reliable whenever the sample size is greater than 150, and, (c) factors with low factorial saturations will not be interpreted unless the sample size is at least 300. In our work, we opted for factorial saturations close to or greater than

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0.40, although the size of our sample is greater than 300 (322). The analysis applied revealed the existence of 13 factors, as well as the variables that best saturate each factor.

Detecting the internal composition of these factors allows a more precise observation of the internal structure that explains teacher well-being associated with ICT innovation practices. On the other hand, all the scales were confirmed to be of value and part of a factorial structure that explains teacher well-being in ICT innovation situations. Each one of these factors describes relevant aspects to be considered in the processes of innovation.

The following step was to analyse the internal validity of each one of the sub-scales that make up the questionnaire. The Káiser-Meyer-Olkin sampling adjustment test and Barlett's sphericity test were previously applied to the data of all the sub-scales to confirm the relevancy of carrying out the corresponding exploratory factor analyses. The results obtained for each one of the six scales confirmed the relevancy of proceeding to the factor analysis, as can be seen in Table 2.

The factorial analysis applied to the sub-scale "*motivation*" disclosed three factors whose self-values (greater than the unit) explained 55.42% of the total for the variance. Therefore the motivation sub-scale includes three factors with a significance level of 0.000, as well as the variables that best saturate each factor. In the following table, the description of each factor is indicated, as well as the saturation coefficient for each one of the variables.

The analysis of the variables saturating each factor alert to the existence of different types of motivations. Therefore, we can conclude that this scale identifies, in a very accurate and precise way, the three types of motivation that lead to innovation practices or good practices with ICT and are represented by three factors identified in the general questionnaire (Table 3).

The sub-scale "*emotions*" expressed the existence of two factors that explain 55.626% of the total for the variance. This coefficient is significant to a confidence level of 99.5% and with a significance level of 0.000. In the factorial matrix obtained, two factors are distinguished, as can be seen in Table 4.

The item "distress and sadness" does not saturate any factor (Table 4). It is necessary to note that these two factors are clearly identified in the general questionnaire as two independent factors.

The exploratory factor analysis applied to the sub-scale "*competencies*" identifies a single factor that explains 69.608% of the total for the variance. Just as in the previous cases, these coefficients are statistically significant. The factorial weights of each item in the extracted factor are high, varying between 0.880 and 0.739. Therefore, this analysis showed that this factor contributes high saturations in each one of the items of the scale and therefore its internal consistency is good. It is represented in the general scale as the "competencies" factor.

Table 2 Results obtained in the sub-scales of the general questionnaire

Sub-scales	Test Káiser/ Olkin	Barlett test		
		Chi-squared	gl	Sig
Motivation	0.742	973.835	66	0.000
Emotions	0.811	898.245	45	0.000
Competencies	0.869	1138.243	15	0.000
Personal Satisfaction	0.873	819.539	36	0.000
Professional Satisfaction context	0.832	576.819	15	0.000
Projects-*life-professional values*	0.785	803.761	21	0.000
Culture and identity of the school	0.869	748.776	36	0.000

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Table 3 Validity of the construct of the sub-scale "Motivations that lead to innovation with ICT"

		Saturation Coef.
Factor 1 "Internal motivation"		
Item 8	I love technology	0.706
Item 7	I know it is necessary for my students	0.681
Item 6	Personal goal to be achieved	0.705
Item 9	Breaks the monotony of teaching and helps me not to be bored in my work	0.641
Item 4	It's my duty and responsibility as a teacher	0.463
Item 5	I use ICT because it makes my work easier	0.431
Factor 2 "Administrative motivation"		
Item 10	It is set out in the school's plan and/or curricular project	0.775
Item 11	It is a requirement for the school to obtain resources and infrastructures	0.770
Item 12	Responds to the requirements of the administration	0.829
Factor 3 "Recognition"		
Item 1	Professional recognition within and/or outside of my institution	0.821
Item 2	Greater social acceptance within my area	0.889
Item 3	Benefits and/or material privileges	0.624

Table 4 Validity of the construct of the sub-scale "Emotions"

		Saturation Coef.
Factor 1 "Positive emotions"		
Item 16	Satisfaction	0.832
Item 14	Pride in what has been done	0.802
Item 20	Well-being	0.811
Item 18	Self confidence (Self-esteem)	0.770
Item 23	Pleasure and happiness	0.519
Factor 2 "Negative emotions"		
Item 21	Worry	0.775
Item 19	Stress	0.759
Item 17	Anger	0.713
Item 15	Frustration	0.640

In the sub-scale "*personal satisfaction*" two identified factors were obtained, which jointly explain 57.101% of the total for the variance (Table 5). All the items of the scale are represented by the two obtained factors.

High saturations were obtained in all these items, which endorses the construct validity of this scale.

In the sub-scale "**satisfaction-professional context**" only one factor was identified that explains 53.96% of the total for the variance. Therefore, the internal validity is good. The factorial weights of each item in the extracted factor are high, varying between 0.810 and 0.646. Thus, it has a good internal consistency, since all the items present high communalities with a single factor. This is conceptualised as "*satisfaction with the professional context*". Nevertheless, this factor contributes to explaining three factors of the general scale.

The sub-scale "life-professional values", as a whole, explain 66.789% of the total the variance for two factors with self-values greater than the unit being obtained. The first factor is represented by "*internal reference requirements*" while the second is defined as "*external reference requirements*".

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This sub-scale, "*culture and identity of the school*", contains two factors that explain 54.979% of the total for the variance (Table 6). The first, "*satisfactory interpersonal relationships*" and the second, "*innovative climate*", are saturated by the variables shown in Table 7.

Table 5 Validity of the construct of the sub-scale "Personal satisfaction"

		Saturation Coef.
Factor 1 "Satisfaction of personal / professional goals"		
Item 32	The ICT innovation project has covered the personal goals that I proposed	0.734
Item 35	The ICT innovation project has covered the professional improvement goals that I set out	0.633
Item 37	The project has served to improve the recognition and support of my initiatives by the teachers and the management team	0.750
Item 39	The project has made my teaching easier	0.707
Item 40	The ICT project has brought me prestige among the students and the parents	0.671
Factor 2 "Satisfaction of external requirements "		
Item 33	The ICT innovation project has responded to the requirements of the education administration	0.837
Item 34	The ICT innovation project has fulfilled the School and/or curricular projects	0.658
Item 38	The project has provided me with extra financial resources	0.613

Table 6 Validity of the construct of the sub-scale "Life-professional values"

		Saturation Coef.
Factor 1 "Internal reference requirements"		
Item 49	Curiosity to experience new things	0.880
Item 50	Anxiety to learn new things	0.889
Item 51	Channel and express creativity	0.660
Item 52	Free and autonomous working	0.658
Factor 2 "External reference requirements"		
Item 53	Improve self-esteem	0.679
Item 54	Professional recognition	0.806
Item 55	Financial recognition	0.728

Table 7 Validity of the construct of the sub-scale "Culture and identity of the school"

		Saturation Coef.
Factor 1 "Satisfactory interpersonal relationships"		
Item 58	The working atmosphere is stimulating and receptive towards innovation	0.614
Item 59	Relationships between teachers, students and parents are fluent and fruitful	0.700
Item 60	Relationships between teachers are satisfactory, transparent and loyal	0.809
Item 61	There is a climate of confidence and respect in the school where thoughts and feelings with regard to what we do can be expressed	0.817
Item 62	Professional competence is valued at the School	0.704
Factor 2 "Innovative climate"		
Item 57	Innovation, creativity and professional commitment are stimulated at the School	0.653
Item 63	Innovation with ICT is the main value in our School	0.667
Item 64	We feel proud to have carried out many ICT projects in common	0.738

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8.2 Results of the confirmatory factor analysis

The confirmatory factor analysis determined which variables explain educational well-being when linked to carrying out innovation activities, supported by the use of ICT. Therefore, we have advanced in the production of a theoretical-explanatory model about the relationships and interdependences between these variables. The program LISREL was used for this. The procedure followed was progressively adjusted to the model, starting with the variables that best explain each factor. The results obtained with the confirmatory analysis allow the underlying structure, obtained in the exploratory factor analysis, to be seen as an acceptable and well adjusted structure (Chi-square = 541,09; df = 269; *p* Value = 0.000; root mean square Error of approximation (RMSEA) = 0.067. It is necessary to highlight a RMSEA value of less than 0.08, which can be considered as an acceptable adjustment (Browne and Cudeck 1993). Likewise the index value NFI (Normed Fit Index) is 0.94–0.90 higher, as suggested by Byrne (1994). The following graph illustrates the model that was finally obtained:

The standardized coefficients established between each factor and the variables that explain it can be seen in Fig. 2, as well as the type of factors that explaining the well-being of the teacher who innovates with ICT.

The empiric comparison of the proposed model shows that all the factors, which explain the well-being of the teacher innovating with ICT, are an internal reference (characteristics related to the personality of the subject), with the constituted model remaining, thus qualifying the proposed theory by three axes. The first is made up of two factors, the values and motivations that lead to innovation with ICT. The second refers to the level of competence of the teacher when they use ICT. These two factors together have an effect on the teacher's

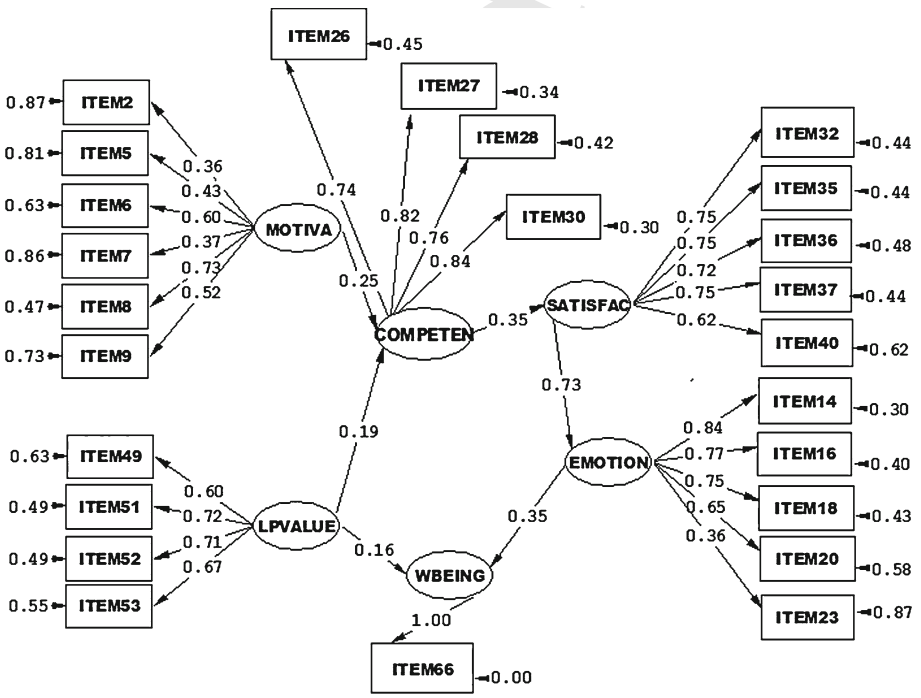

Fig. 2 Results of the confirmatory factor analysis of the proposed Model

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personal satisfaction, when they face innovative activities with ICT, and they experience positive emotions, as well as a feeling of well-being due to the innovative activity that is carried out. Discarded from this empirical model are the variables culture and identity of the school, as well as professional satisfaction. The results of these two factors, in conjunction with those previously mentioned, fail to generate an acceptable weight.

9 Conclusion

This work has allowed the identification, and empirical comparison of those factors that explain the theoretical model about educational well-being, when the teacher tackles innovative processes mediated by ICT. The results obtained indicate that the interaction model that we started with remains blended with another deeper and more emotional model, guided fundamentally by the teacher's internal motivation and by the goals and values that guide their innovative activity with ICT. These two factors, together with the command of ICT competencies as instruments that aid the innovation, are the three pillars that sustain the personal satisfaction and the positive emotions that the teacher feels when they tackle innovative processes with ICT. We could say that, given certain conditions with regard to internal motivation and goals to be achieved, the command of the "competencies" is a key to the carrying out innovation in educational centres and, finally, so that the teacher feels emotionally rewarded by the innovative activity performed.

As Eid and Larsen (2008), the validated model establishes the three dimensions that these authors identify: emotional, evaluative and projective, as well as their interdependence. Thus, the positive or negative emotions bear a close relationship to the goals or the personal projects of the teachers. Therefore, for the emotions to exist, it is necessary that there is a purpose, an objective to achieve. On the other hand, a cognitive/evaluative process is needed, which relates proposed goals with the achievements reached. The result of this evaluation produces the emotions, positive if the objectives are achieved, and negative if the goals are not reached. Within this explanatory framework, motivation occupies a relevant place, since this is the motor with which the action taken to achieve the proposed objectives begins. Studies on this subject (Carr 2007; Marchesi 2007) point to the fact that intrinsic motivation is a factor clearly associated with teacher well-being. Teachers who have intrinsic motivation show more interest, more enthusiasm and more confidence, with regard to educational tasks. They also present a superior performance, more perseverance and more creativity. Consequently, they manifest a greater self-esteem and a greater feeling of well-being. On the other hand, intrinsic motivation is related to the levels of ability to carry out a specific activity. In turn, a greater ability produces more positive emotions, and a lesser ability, leads to anxiety, concern and apathy.

Therefore, these findings seem to indicate a certain internal structure of teacher well-being, whose identification could be of greater use for the training of teachers. Research into emotional education (Bisquerra 2003, 2005) warns of the need to search for suitable strategies for the introduction of programs for emotional education, both at the level of educational centres and within public administration. We can therefore, identify and improve relevant keys to help improve the emotional states of the teachers in practice.

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