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## THOUGHTS ON MILITARY EDUCATION AND TRAINING IN SPAIN

### **Abstract**

Military education and training in Spain is currently undergoing a complete overhaul following the enactment of Law 39/2007 on the Military Career. The aim is to achieve higher standards of quality and attach special importance to the role of military teaching staff. Based on an analysis of the current situation, we present a number of thoughts and proposals on how to improve the quality of military education, placing special emphasis on the preparation, training and recognition of the teaching staff.

### **KeyWords**

Military education and training, military teaching staff and instructors, quality of education.

## THOUGHTS ON MILITARY EDUCATION AND TRAINING IN SPAIN

### MILITARY EDUCATION AND TRAINING IN SPAIN

**M**ilitary education encompasses the provision of training and further and higher education in national defence.<sup>1</sup> The training -of officers, non-commissioned officers (NCOs) and privates -includes military and technical training with the ultimate goal of preparing and equipping them to perform their professional duties. Unlike the previous military education system- provided for in Law 17/89 on the Regime for Professional Military Personnel<sup>2</sup> and in Law 17/99 on the Regime for Personnel of the Armed Forces<sup>3</sup> whereby military graduates obtained *equivalent* or *comparable* qualifications to those in the mainstream education system, the new law provides for the obtainment of *official* qualifications under the latter system: a bachelor's degree in the case of officers,<sup>4</sup> a higher diploma in vocational training in the case of NCOs and an intermediate diploma in vocational training in the case of privates.

For its part, further education and higher studies in National Defence provide continuous training and the ongoing development of skills throughout the serviceman's military career, both of which are geared towards learning and knowledge management.<sup>5</sup> Further education aims to prepare the serviceman to obtain different specialities that complement his main speciality and others that enable him to adapt or redirect his professional background in order to perform tasks in other fields, and to expand or update the skills needed to perform his duties. In this sense, further education includes both qualifications from the general education system and other, specifically military ones.<sup>6</sup> Finally, higher education in National Defence addresses subjects

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1 Article 43.2 of Law 39/2007 on the Military Career, Boletín Oficial del Estado, no. 278, p. 47347.

2 Law 17/1989 governing the Regime for Professional Military Personnel, Boletín Oficial del Estado, no. 172, 1989, pp. 23129-23147.

3 Law 17/1999 governing the Regime for Armed Forces Personnel, Boletín Oficial del Estado, no. 119, 1999, pp. 18751-18797.

4 Industrial Engineering and Operations Research in the case of the Ground Troops and Air Force, and Mechanical Engineering in the case of the Navy.

5 Article 1 of Royal Decree 339/2015, governing further and higher education in National Defence, Boletín Oficial del Ministerio de Defensa, no. 85, 2015, p. 9709.

6 Royal Decree 339/2015, governing further and higher education in National Defence, op. cit., Article 12, p. 9715.

relating to peace, security, defence and military policy. These studies are designed for professionals of the Armed Forces (FAS) and other areas of the public administration and society, and aim to:

- a) Contribute to the convergence of different social sectors in the shared task of National Defence
- b) Promote greater knowledge of contemporary international relations among the FAS
- c) Supplement the training of servicemen so that they can work in the areas of consultancy and senior management in the higher management bodies of the Ministry of Defence (MINISDEF) and in international security and defence organisations of which Spain is a member
- d) Develop skills for the performance of duties in the general officer category.<sup>7</sup>

Military education and training is provided in military education centres (CDMs) and, in the case of officer training, it is also provided at defence university centres (CUDs) attached to public universities and located in the general military academies.<sup>8</sup> Higher National Defence studies are provided at the Higher Center for National Defence Studies (CESEDEN) which, for this purpose, is structured into the Higher Defence Studies College (EALEDE), the Higher Staff College of the Armed Forces (ESFAS) and the Spanish Institute for Strategic Studies (IEEE).

According to the Military Career Law, general and specialised military training shall be given by military teaching staff who meet the requirements and have the necessary qualifications and skills.<sup>9</sup> In this regard, the Regime for Teaching Staff of the CDM envisages the following teaching categories:<sup>10</sup>

- a) Tenured, military and civilian lecturers assigned to the education centre where they work on a full-time basis.
- b) Tenured professors, both military and civilian, assigned to other units, centres or bodies, and who combine teaching with their work at their main destinations
- c) Emeriti professors: military reserves who have rendered outstanding services to military education and training for at least six years.

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7 Ibid. Article 18, pp. 9717-9718.

8 The Academia General Militar in Zaragoza, the Escuela Naval Militar in Marín (Pontevedra) and the Academia General del Aire in San Javier (Murcia). For more information on the Defence university centre system, see DÍAZ-SANTOS, Pablo: “El título de grado en ingeniería de organización industrial”, *Revista Ejército*, no. 840, 2011, pp. 51-59.

9 Law 39/2007 on the Military Career, op. cit., p. 47352.

10 Ministerial Order 98/1994 on the Regime for Teaching Staff of Military Education Centres, *Boletín Oficial de Defensa*, no. 204, 1994, pp. 6551-6552.

- d) Associate professors: renowned professionals who do not normally work in the military field but who join a CDM on a temporary basis in order to teach a specific subject.
- e) Visiting professors who teach or conduct research in other civil or military education centres and who join a CDM on a temporary basis in order to teach specific subjects.

## SOME THOUGHTS AND PROPOSALS ON HOW TO IMPROVE MILITARY EDUCATION AND TRAINING

A defining characteristic of military education is its *integration* into the mainstream education system, pursuant to Law 17/1989 on Professional Military Personnel<sup>11</sup> and subsequently Law 17/1999 on the Regime for FAS Personnel,<sup>12</sup> until ultimately being enshrined in Article 43.1 of Law 39/2007 on the Military Career.<sup>13</sup> As a result, military education shall comply with the principles, purposes and goals of the mainstream system, which include the quest for continuous improvement in the quality of teaching and the development and promotion of the work, training, preparation and recognition of the teaching staff.

The new military education and training system introduced pursuant to Law 39/2007 is a significant step forward, given that it aims to standardise and place military education on equal footing with that provided in civilian education centres. This shift -which called for profound changes in student selection, curricula and the organisation of the CDMs- was not initially easy, especially in the case of higher education for officers. The difficulties encountered in introducing the new education model have been multiple, as has criticism of the model, which has largely centred on aspects such as the alleged lack of motivation and dedication of the new students and the inappropriateness of current curricula which are apparently more focused on academic rather than military aspects.

However, the change in model is irreversible and initial results are showing outstanding success and performance rates, especially in the case of officer education. However, despite this, the model still has a number of shortcomings that need to be addressed, such as the excessive academic load of the new curricula, the decreased importance that the curricula afford to humanistic training and, in particular, the teaching of values; the lack of training, motivation and satisfaction of the military teaching staff and the little recognition they receive for their work. On this point, after analysing the current situation, some thoughts and proposals on how to improve the quality of military education and training and the teaching staff are set out below.

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<sup>11</sup> Article 32.2 of Law 17/1989 governing the Regime for Professional Military Personnel, *op. cit.*, p. 23132.

<sup>12</sup> Article 50.2 of Law 17/1999 governing the Regime of the Armed Forces Personnel, *op. cit.*, p. 1873.

<sup>13</sup> Law 39/2007 on the Military Career, *op. cit.*, p. 47347.

## An education model based on the acquisition of skills

The reform of the military education model has a number of goals, including the strengthening of its integration into the mainstream system; substitution of the previous model, in which military qualifications were equivalent to those of the mainstream system, for a model in which qualifications are identical to those of the latter; the provision of greater recognition and visibility to military training and education and equal qualification opportunities for members of the FAS.<sup>14</sup> In the field of higher military education and officer training in particular, the aim was also to integrate these into the European Higher Education Area (EHEA) launched along with the Bologna Process, designed to ensure comparability in the standards of higher education qualifications in EU Member States, so that graduates of general military academies could obtain higher civil qualifications that were fully recognised. This led to the introduction of numerous new developments in higher military education such as the promotion of foreign language learning, the assessment of teaching quality, the adoption of the European Credit Transfer and Accumulation System (ECTS)<sup>15</sup> and implementation of the current university approach to education which is based on the acquisition of skills.

The concept of skill has been developed both in the areas of human resources and vocational training and refers primarily to the skills and abilities that a person should possess in order to be able to perform a certain job effectively.<sup>16</sup> In the business arena, Marelli defines skill as the working capacity that is measurable and necessary for performing a job effectively [and] comprised of knowledge, skills, abilities and conducts that employees must demonstrate if the organisation is to achieve its goals and objectives.<sup>17</sup> For its part, skill has been defined in the field of education as “a system of knowledge, skills, attitudes and values that are acquired progressively in different contexts and applied in specific situations to resolve complex problems through the effective performance of academic and professional tasks in order to achieve compre-

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14 ÁLVAREZ JIMÉNEZ, Juan A.: “Enseñanza Militar”, 27 May 2015. Available at: <http://www.defensa.gob.es/Galerias/ministerio/organigramadocs/presentacion-general-ensenanza.pdf>. [last visited: 28.10.2015].

15 The ECTS credit system adopted by all universities in the EHEA aims to ensure comparability in the standards and quality of higher education. ECTS credits are a measure of the work (25 to 30 hours) that a student must complete in order to achieve the targets set for the relevant curricula, and include lectures, theoretical and practical class hours, in addition to study hours and the hours spent attending seminars, assignments, practical work and projects, and those required for the preparation and sitting of examinations and assessments.

16 LÓPEZ RUIZ, Juan I.: “Un giro copernicano en la enseñanza universitaria: formación por competencias”, *Revista de Educación*, 356, 2011, p. 284.

17 MARELLI, Anne F. (2000). An introduction to competency analysis and modeling. Working paper, Toronto, 2000, p. 7.

hensive personal development”.<sup>18</sup> Based on this definition, skills have a distinctive set of characteristics or traits such as systematicity, sequentiality, functionality, contextualisation, transferability and evaluability.<sup>19</sup>

The application of the skills approach in higher education is justified for several reasons.<sup>20</sup> Firstly, as mentioned earlier, the quest for consistency and integration throughout the Spanish education system, given that it is logical to assume that if non-university education is now based on a skills approach, the higher education model should also be based on this approach. In addition, the skills approach allows the mission of 21<sup>st</sup>-century education to be reoriented not just towards the acquisition of specialist knowledge and specific professional skills by students, but also the strengthening of their overall training through the acquisition of a series of cross-disciplinary skills aimed at human development and training in democratic values. Another important goal is to facilitate the convergence of the curricula of university degree courses provided in Spain and the rest of Europe, thus promoting the recognition of qualifications within the EHEA. And despite the diversity of the curricula of certain degree courses offered by higher education centres and universities within the EEES, they are all aimed at the acquisition of the same general and specific skills.

The adoption of a skills-based approach by universities has also enabled a comprehensive overhaul of teaching methodology, provided a new perspective in teacher assessment and, most especially, the student learning process. It is no longer about assessing whether the student has assimilated a set of academic concepts and contents, but rather about checking whether he has acquired a series of skills that he can use in different contexts and situations in his working and professional life.

Specifically, in the area of military officer training, Order DEF/810/2015, laying down the general guidelines for the preparation of training curricula for different ranks of officers of the armed forces, defines skills as “capabilities that the student should acquire and then demonstrate in the application of the knowledge, capabilities, skills and abilities required for the field of activity in which he will perform his duties, primarily those required for the his first post in the officer rank he joins”.<sup>21</sup> The aforementioned Order states that the purpose of officer training is to enable students to acquire the skills needed for the jobs determined by the Undersecretary of Defence and the Chiefs of Defence Staff of the armies within their respective areas

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18 LÓPEZ RUIZ, Juan I: “Un giro copernicano en la enseñanza universitaria: formación por competencias”, op. cit., p. 287.

19 Ibid. pp. 286-287.

20 Ibid, pp. 282-283.

21 Order DEF/810/2015, of 4 May, laying down general guidelines for the preparation of curricula for training to access the different ranks of officers of the Armed Forces. Boletín Oficial del Estado, no. 107, p. 38781.

of competence.<sup>22</sup> The introduction of this concept into higher military education was new for most military instructors and gave rise to quite a few difficulties that are being overcome with time. As concepts such as basic, general, cross-disciplinary and specific skills were unheard of up to this point, there was initial difficulty in drawing up the first curricula for general and specific military education in general academies, as well as identifying suitable candidates for these courses.

Another difficulty that arose following the introduction of the new military higher education model and the skills approach was the need to amend the goals and content of the curricula, adjust the role and functions of the instructor and, consequently, change the learning strategies.

Prior to the advent of the EHEA, university curricula typically included several subjects (given over a term) and were often criticised for being excessively long and disjointed, in most cases leading to programmes comprised of numerous subjects that there was barely enough time to cover during the course or term and preventing students from getting a general understanding of the very diverse content of a particular subject. However, the new higher education model is based more on the mastery of a number of general and specific skills within each subject and less on the mere acquisition of in-depth academic knowledge. Consequently, it became necessary to reduce the content of academic curricula and integrate them into a series of interdisciplinary and interconnected modules.<sup>23</sup>

In addition, with the EU reform of higher education, the teacher has ceased to play the role of a transmitter of content and knowledge and has instead become a tutor or mentor for the acquisition of skills by students in a proactive and relatively autonomous way. From this perspective, it is not about presenting fully developed academic content to students, but for students to obtain information from different sources and transform this into the knowledge needed to resolve problems, with the process including different skills and abilities (analysis, synthesis, critical assessment, design, etc.). The aim, therefore, is for students to acquire and build up genuine and valuable knowledge that can then be applied to different scenarios and complex, new and uncertain situations.<sup>24</sup>

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22 Ibid. Readers interested in learning more about the skills that students of general military academies have to acquire can consult, on the one hand, the curricula of military training courses for officers of land, sea and air forces approved by the respective chiefs of defence staff and, on the other hand, the evaluations of degree proposals approved by the National Agency for Quality Assessment and Accreditation of Spain (ANECA). By way of example, the Engineering Degree course taught at the CUD of the Escuela Naval Militar in Marín provides for the acquisition of 5 basic skills (CB), 12 general skills (CG), 21 cross-disciplinary skills (CT) and up to 51 specific skills (CE). See: UNIVERSIDAD DE VIGO: Memoria de solicitud de verificación del título de grado en Ingeniería Mecánica, 5 de marzo de 2012, pp. 6-8, <http://cud.uvigo.es/images/Documentacion/memoriafinalmecanica.pdf> [last visited: 23.10.2015].

23 LÓPEZ RUIZ, Juan I.: “Un giro copernicano en la enseñanza universitaria: formación por competencias”, op. cit., pp. 289-291.

24 Ibid. p. 293.

Finally, as López Ruiz has pointed out, the acquisition and learning of general and specific skills is impossible if the higher education system continues to expect lecturers to give master classes to students who receive the content in a primarily passive way. The learning and teaching of skills has led to a complete overhaul of the traditional methodologies found in the higher education system and there has been a shift from a deductive teaching strategy -focused on the provision by the lecturer of theoretical content and the assignment of exercises and problems that enable their application- to an inductive approach whereby students build up content by researching and tackling different types of problems and then transferring this knowledge to other contexts and situations.<sup>25</sup> All of this has resulted in the introduction of new teaching strategies and the diversification of educational activities, limiting the central role played up to now by masterly exposition in higher education<sup>26</sup> and moving away from the traditionally passive and receptive role played by students towards a much more active, participative and “investigative” one.

### The importance of values in military education

The armed forces are a highly hierarchical and disciplined institution that attaches major importance to a series of values and moral virtues that are deeply rooted in the institution. Apart from constituting ethical principles and a code of conduct for servicemen, values also serve other important functions, such as the promotion of intra-organisational<sup>27</sup> cohesion and the achievement of the FAS's missions and objectives,<sup>28</sup> especially during times of war.<sup>29</sup> Of these values, special mention must be given to patriotism, courage, a spirit of sacrifice and self-denial, discipline and obedience, comradeship, loyalty and honour.<sup>30</sup>

However, in recent decades Spain has experienced a number of economic, cultural and social changes that have significantly affected the mentality and behaviour of its people,

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25 Ibid. pp. 283-293.

26 In this case, special importance is attached to activities like debates, experimentation, research, work experience, simulations and demonstrations, field work, the drafting and analysis of documents, group dynamics, the application of models and techniques, the presentation of individual and group assignments, the development of conceptual diagrams and maps, creation and participation in forums, websites, blogs and wikis, etc.

27 BAQUÉS, Josep: “La profesión y los valores militares en España”, *Revista Internacional de Sociología*, 38, 2004, p. 134.

28 BERRIO, Francisco J.: “Valores institucionales de las Fuerzas Armadas”, *Cuadernos de Estrategia*, no. 89, 1997, pp. 127-170.

29 BAQUÉS, Josep: “La profesión y los valores militares en España”, *op. cit.* p. 135.

30 DE LA LASTRA, Juan: *La formación en valores en las Fuerzas Armadas*, Ministry of Defence, 2009; Royal Decree 96/2009 approving the Royal Instructions for the Armed Forces, *Boletín Oficial del Estado*, no. 33, 2009, pp. 13008-13028.

and had important consequences for Spanish society. One of the consequences of these changes has been the diminished importance of moral values, which has led to their being undervalued, ignored, questioned and even scorned upon. As a result, values that were once regarded as essential for the proper exercise of the military profession are now undermined, have lost their force and relevance and led many officers to feel disconcerted and morally disoriented, which can consequently influence and shape their behaviour.<sup>31</sup> This situation has been exacerbated in recent years by certain shortcomings in the teaching of values at military academies and schools. Very often, the training curricula give the teaching of technical subjects priority over humanistic ones, thus triggering a serious imbalance in favour of the former. Accordingly, and despite the fact that military curricula include subjects related to ethics, the lack of formal training in values has become a serious problem within the FAS.<sup>32</sup> And this has occurred despite the huge importance attached to this type of training in the present day, as stated by the Minister for Defence, Pedro Morenés,<sup>33</sup> and the Director General for Military Recruitment and Training, Lieutenant General Álvarez Jiménez.<sup>34</sup> The revival of education in values has come about with the amendment of the regulations governing military personnel, and several milestones have been achieved in this regard. Firstly, the enactment of aforementioned Law 39/2007 on the Military Career, one of whose objectives includes the “expansion” of values among members of the FAS in order to make them outstanding officers and public servants, and it also entrusts education and training with the task of promoting values and codes of conduct among servicemen.<sup>35</sup> Similarly, the Royal Instructions for the Armed Forces (ROFAS) of 2009 stress the importance of ethical principles and codes of conduct for military officers in accordance with the Constitution and other legislation.<sup>36</sup> Article 15 of the Royal Decree approving the aforementioned Royal Instructions highlights the importance of values, pointing out that military officers “shall give priority to ethical principles that respond to a requirement and will make these a rule for life”.<sup>37</sup> Referring specifically to military education and training, Article 129 urges officers in teaching roles to instil a set of constitutional principles and values in their students, thus promoting ethical principles and codes of conduct among them.<sup>38</sup> Therefore, military instructors must convey values to their students and these, in turn, must assimilate and internalise them.

31 “Formación en valores”, *Revista de Aeronáutica y Astronáutica*, no. 751, 2006, p. 163.

32 *Ibid.*

33 MORENÉS, Pedro: “Lección inaugural de apertura del curso 2013/14 en la Academia General Militar”, *Armas y Cuerpos. La Revista del Cadete*, no. 367, Zaragoza, Academia General Militar, 2013, pp. 1, 3-4.

34 ÁLVAREZ JIMÉNEZ, Juan A.: “La enseñanza de los valores en las Fuerzas Armadas”, *Memorial de Infantería*, no. 68, 2013, pp. 29-36.

35 Law 39/2007 on the Military Career, *op. cit.*, p. 47350.

36 Royal Decree 96/2009, approving the ROFAS, *op. cit.*, Article 1, p. 13012.

37 *Ibid.* p. 13014.

38 *Ibid.* p. 13028.

Furthermore, Organic Law 9/2011 on the Rights and Duties of FAS members, provides that one of the obligations of all military officers is to abide by codes of conduct based on “traditional values of the army”,<sup>39</sup> and the new disciplinary regime of the FAS is aimed at safeguarding public interest and the protection and defence of the essential values of the FAS.<sup>40</sup> Finally, Order DEF/810/2015, laying down general guidelines for the preparation of curricula for the training of different ranks of officers of the Armed Forces, points out that one of the guiding principles of military education and training is to “guarantee training based on the transfer of values, knowledge and skills” and to “provide training that is underpinned by respect for fundamental rights and freedoms, equal rights and opportunities for men and women, protection of the environment, non-discrimination of people based on race or religion, and respect for justice”.<sup>41</sup> Similarly, according to the foregoing Order, officer training shall “ensure complete human training and full development of the student’s personality (...) promote constitutional principles and values, taking account of the cultural diversity of Spain” and “promote values and codes of conduct among military officers”.<sup>42</sup>

Consequently, values are built on an element that is inherent to and fundamental for the military profession and, hence, for the education and training of that profession. However, the integration of military training into the mainstream education system means that the principles guiding the latter shall also apply. These are set out in Article 1 of Organic Law 2/2006 on Education and include, among others, “the transfer and implementation of values that promote personal freedom, responsibility, democratic citizenship, solidarity, tolerance, equality, respect and justice”.<sup>43</sup>

In conclusion, in the current reform of military education and training process it is necessary to attach greater importance to students’ humanistic training, promote the teaching of values and place these at the centre of the education process<sup>44</sup> given that, as pointed out by the current Director General for Military Recruitment and Training, the transmission of values is a distinctive feature of military education.<sup>45</sup> On this point, military training should be conceived as “an immersion system for values” in which the teacher acts as a role model for students and a vehicle for the transfer of

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39 Organic Law 9/2011 on the Rights and Duties of members of the Armed Forces, *Boletín Oficial del Estado*, no. 180, 2011, p. 85320.

40 Organic Law 8/2014 on the Disciplinary Regime of the Armed Forces, *Boletín Oficial del Estado*, no. 294, 2014, p. 100151.

41 Order DEF/810/2015, *op. cit.*, Articles 2.b and 2.c, pp. 38780-38781.

42 *Ibid.*, Articles 4.c, d and f, p. 38781.

43 Organic Law 2/2006 on Education, *Boletín Oficial del Estado*, no. 106, 2006, p. 17160.

44 “20 años de la Academia Básica del Aire”, *Revista de Aeronáutica y Astronáutica*, no. 813, 2012, p. 411.

45 ÁLVAREZ JIMÉNEZ, Juan A.: “Enseñanza Militar”, *op. cit.*

values.<sup>46</sup> This is an essential step if future FAS professionals are to internalise and embrace the values underpinning the military institution, and which are essential for the performance of the tasks, functions and missions entrusted to them.<sup>47</sup>

### Failure and drop-outs are inherent to military education and training

One of the distinctive features of military training in the past has been the low drop-out and failure rates, and this has historically been regarded as an indicator of the quality of the system.<sup>48</sup> However, this was often due to military teaching staff being over *empathetic* towards students and the inertia and pressure on the system to ensure that students successfully completed their training, all motivated by the need to meet previously established quotas and provisions.

Implementation of the new military training model for officers in the 2010/2011 academic year saw a sharp increase in drop-out rates in some military academies and centres compared to previous years, which was the case of the *Academia General Militar* or General Military Academy (AGM). During the 2010/2011 academic year, of the 258 students enrolled in the class of LXX, 49 applied for voluntary release and 9 failed to pass the relevant examinations, which represents 22.48% of students in the first year.<sup>49</sup> The following year (Class of LXXI; academic year 2011/2012), of the 245 students enrolled, 39 applied for voluntary release and 21 students failed to pass the examinations (24.49% of the total). In the case of the *Escuela Naval Militar* or Naval Academy (ENM), the number of cadets who dropped out during the first academic year (2010/2011) was 14 (16.86%). On the other hand, the *Academia General del Aire* or Air Force Academy (AGA) had the lowest drop-out rate, with just 4 students out of a total of 75 that enrolled for the first year (5.2%).<sup>50</sup> These dropout rates are significantly higher than those found prior to the introduction of the new military education model.

Similarly, failure and repeat rates at the AGM have increased significantly since the introduction of the new military higher education model. Out of a total of 258 cadets

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46 ÁVILA, Santiago: “A vueltas con la reforma de la enseñanza superior militar”, *El Confidencial Digital*, 27 March 2013, [http://www.elconfidencialdigital.com/opinion/tribuna\\_libre/vueltas-reforma-ensenanza-superior-militar\\_o\\_2023597630.html](http://www.elconfidencialdigital.com/opinion/tribuna_libre/vueltas-reforma-ensenanza-superior-militar_o_2023597630.html). [last visited: 28.10.2015].

47 “Formación en valores”, *Revista de Aeronáutica y Astronáutica*, op. cit., p. 163.

48 MINISTERIO DE DEFENSA Y AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN (ANECA): *Evaluación del sistema de enseñanza militar. Anexo 1: Modelo para la evaluación de los Centros Docentes Militares*, 2007, pp. 86, 124-125.

49 PUENTES, Francisco: “La evolución de la enseñanza militar de formación para oficiales del ET”, *Boletín de Información del CESEDEN*, 2013, [http://www.defensa.gob.es/ceseden/Galerias/destacados/publicaciones/Otros/ficheros/BI\\_329\\_-\\_PALABRAS\\_EN\\_LA\\_CONFERENCIA\\_DEL\\_TG\\_MADOC\\_EN\\_EL\\_CESEDEN.pdf](http://www.defensa.gob.es/ceseden/Galerias/destacados/publicaciones/Otros/ficheros/BI_329_-_PALABRAS_EN_LA_CONFERENCIA_DEL_TG_MADOC_EN_EL_CESEDEN.pdf) [last visited: 28.10.2015].

50 DEL VADO, Santiago F.: “Vuelta a las aulas”, *Revista Española de Defensa*, no. 299, 2013, p. 10.

in the Class of LXX, only 141 completed the year successfully; of these, 49 students had to repeat;<sup>51</sup> and 51 of the 245 students in the class of LXXI (2011-2012 academic year) also had to repeat the year.<sup>52</sup> The considerable increase in drop-out and failure rates at the AGM has triggered a heated debate among the general public and even the FAS as to the legitimacy and suitability of the new military higher education model, with two sides emerging: a critical side that believes the model is unsuitable for the training of FAS officers, as has been demonstrated by the results<sup>53</sup> and, on the other side, those who see the model as a solution to the much-needed adaptation of military education to meet new training needs and who regard the drop-out and failure rates as normal.<sup>54</sup> Without wanting to become embroiled in this debate, we do believe it is necessary to mention the possible causes of the increased drop-out and failure rates at the AGM. These include the difficulty of the new curricula,<sup>55</sup> the “harshness” of certain civilian teachers,<sup>56</sup> the lack of preparation of some of the students, their ignorance of military life and homesickness,<sup>57</sup> insufficient time for study,<sup>58</sup> lack of vocation, military spirit or false expectations.<sup>59</sup>

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51 ÁLVAREZ JIMÉNEZ, Juan Antonio. “Que la AGM tenga un número mayor de bajas no es preocupante”, *One Magazine*, 30 November 2012, <http://www.onemagazine.es/noticia/10672/Sin-Especificar/TG-Alvarez-Jimenez:-Que-la-AGM-tenga-un-numero-mayor-de-bajas-no-es-preocupante-.html> [last visited: 28.10.2015]; CALDERÓN Joaquín: “El nuevo plan de enseñanza comienza «a dar frutos» en la Academia General Militar, tras un inicio complicado”, *One Magazine*, 30 November 2012, <http://www.onemagazine.es/noticia/10669/el-nuevo-plan-de-ensenanza-comienza-a-dar-frutos-en-la-academia-general-militar-tras-un-inicio-complicado.html> [last visited 28.10.2015].

52 PUENTES, Francisco: “La evolución de la enseñanza militar de formación para oficiales del ET”, *op. cit.*

53 ÁVILA, Santiago: “A vueltas con la reforma de la enseñanza superior militar”, *op. cit.*

54 ÁLVAREZ JIMÉNEZ, Juan A.: “Que la AGM tenga un número mayor de bajas no es preocupante”, *op. cit.*; GAN, Francisco J.: “Consideraciones sobre el primer curso de la enseñanza de formación de oficiales del Cuerpo General del ET”, *Revista Ejército*, no. 849, 2012, p. 90. General Gan Pampols of the Army Ground Forces was the director of the AGM from 2010 - the year in which the new military education model was introduced - until 2012.

55 CALDERÓN, Joaquín: “El nuevo plan de enseñanza comienza «a dar frutos» en la Academia General Militar, tras un inicio complicado”, *op. cit.*; PUENTES, Francisco: “La evolución de la enseñanza militar de formación para oficiales del ET”, *op. cit.*

56 “Los alumnos de la Academia General de Zaragoza no aguantan. Aumentan los abandonos en los últimos cursos por la dureza de Bolonia y la exigencia de los profesores civiles”, *El Confidencial Digital*, 10 September 2012, [http://www.elconfidencialdigital.com/defensa/Academia-General-Zaragoza-Aumentan-Bolonia\\_o\\_1904809509.html](http://www.elconfidencialdigital.com/defensa/Academia-General-Zaragoza-Aumentan-Bolonia_o_1904809509.html) [last visited: 28.10.2015].

57 GAN, Francisco J.: “Consideraciones sobre el primer curso de la enseñanza de formación de oficiales del Cuerpo General del ET”, *op. cit.*, p. 89.

58 “Por qué está fracasando la Academia General Militar. Profesores civiles, menos instrucción castrense y rebaja del tiempo de estudio”, *El Confidencial Digital*, 20 September 2012, [http://www.elconfidencialdigital.com/defensa/Academia-General-Militar-Profesores-instruccion\\_o\\_1910808921.html](http://www.elconfidencialdigital.com/defensa/Academia-General-Militar-Profesores-instruccion_o_1910808921.html) [last visited: 28.10.2015].

59 ÁLVAREZ JIMÉNEZ, Juan A.: “Que la AGM tenga un número mayor de bajas no es preocupante”, *op. cit.*; CALDERÓN, Joaquín: “El nuevo plan de enseñanza comienza «a dar frutos» en la Academia General Militar, tras un inicio complicado”, *op. cit.*; “Por qué está fracasando la Academia General Militar. Profesores civiles, menos instrucción castrense y rebaja del tiempo de estudio”, *op. cit.*

In any event, it is necessary to clarify several issues in this regard: firstly, the alleged “failure” of the new military higher education system that certain authors refer to appears only to apply to the AGM, and not to the ENM or AGA. As can be seen from table 1, during the 2010/11 and 2011/12 academic years, the success rates for cadets in their first year at the CUD in Zaragoza was around 70%, and more than 95% at the CUDs in Vigo (ENM) and San Javier (AGA).

ACADEMIC YEAR										
			2010/11		2011/12		2012/13		2013/14	
			SR	PR	SR	PR	SR	PR	SR	PR
YEAR	1º	AGM	71,40%	67,30%	74,20%	72,70%	85%	81%	80,70%	79%
		ENM	96%	95,30%	97,60%	97,60%	95,30%	95,30%	96,50%	93,70%
		AGA	97,90%	91,90%	96,90%	95,20%	93,90%	93,90%	93,40%	93,40%
	2º	AGM			85,20%	84,30%	86,70%	86%	85,80%	85,40%
		ENM			98%	98%	99,10%	99,10%	94,90%	94,90%
		AGA			98,70%	97,70%	97,20%	97,20%	95,40%	95,40%
	3º	AGM			86%	84,20%	95,70%	95,60%	91,20%	90,80%
		ENM					96%	96%	95,90%	95,90%
		AGA					96%	96%	98,60%	98,60%
	4º	AGM							99,40%	99,40%
		ENM							99,80%	99,80%
		AGA							96,70%	96,70%

Table 1. Success and performance rates of cadets at CUDs since the implementation of the new military education system for officers in 2010.<sup>60</sup> (Source: prepared by the author based on data provided by the CUDs).

Secondly, data on the AGM shows that the success and performance rates of recent classes (those of LXXII and LXXIII) increased significantly over those of the 2010/11 academic year, and that the differences between these rates and the rates obtained by cadets at the ENM and AGA were less pronounced.

In addition, it should be borne in mind that the courses given at the CUDs are also available at numerous public and private Spanish universities that have similar curricula approved by ANECA.<sup>61</sup> A comparison of the results obtained by cadets at the CUDs with those of students taking the same courses at other universities should prove enlightening. The first piece of data to consider in this case is the information

60 Success rate (SR) = approved academic credits / assessed credits. Performance rate (PR) = approved academic credits / assessed credits.

61 Industrial Engineering and Operations Research undergraduate degree courses are provided by the following universities, among others: Autonomous University of Barcelona, University of the Basque Country, Polytechnic University of Madrid, Polytechnic University of Valencia, Polytechnic University of Catalonia, Pontifical University of Comillas, the Rey Juan Carlos University, University of Seville, University of Deusto and the University of Navarra. On the other hand, Mechanical Engineering undergraduate degree courses can be taken at the following universities, among others: Alfonso X el Sabio University, Jaime I University, Polytechnic University of Catalonia, University of Seville, University of Málaga, University of Cantabria, University of La Rioja, University of Salamanca and University of La Laguna.

provided in the report of the Conference of Rectors of Spanish Universities (CRUE) for 2012, according to which the success and performance rates of students of undergraduate Engineering degrees at public Spanish universities during the 2010/2011 academic year were 70.7% and 55.5% respectively.<sup>62</sup> These figures are lower than those obtained by cadets at the three general military academies, including the AGM.

While data will soon be available on the graduation rates of the first students to study the different engineering degrees at general military academies,<sup>63</sup> in the meantime we can compare the results obtained by cadets after the first year of the new education model being introduced (2010/11) with those obtained by students of other Spanish universities after the first academic year of launching the degree course in question. Tables 2 and 3 show that the success and performance rates of cadets on completion of the first year of the course at all three CUDs are higher than those obtained by most students taking the same course in other Spanish universities.

Centre	Performance rate	Success rate	Academic year
CUD San Javier	91,93	97,91	2010/11
CUD de Zaragoza	65,46	71,2	2010/11
University of Zaragoza (Escuela Universitaria Politécnica de La Almunia)	71,2	67,3	2010/11
ETSI Bilbao (University of the Basque Country)	37,22	55,4	2010/11
Polytechnic University of Valencia	57,08		2010/11
University of Las Palmas de Gran Canaria	63,64		2010/11
University of Seville	47,41		2011/12
Rey Juan Carlos University (Vicálvaro)	78,2	83,8	2011/12
Rey Juan Carlos University (Móstoles)	71,28	77,1	2012/13

Table 2. Comparison of the performance and success rates of cadets and students taking Industrial Engineering and Operations Research degree courses at different Spanish universities.<sup>64</sup>

62 MICHAVILA, Francisco (Dir.): *La Universidad española en cifras 2012*, Conferencia de Rectores de las Universidades Españolas (CRUE), 2012, p. 175.

63 On this point, let us not forget that the first cadets to study at general military academies where the new military education model for officers was introduced will not complete their studies at the CUDs until July 2014.

64 When preparing this table, the findings of the following reports were taken into account: CENTRO UNIVERSITARIO DE LA DEFENSA DE SAN JAVIER: *Resultados académicos curso 2010/11*, San Javier, 2011; CENTRO UNIVERSITARIO DE LA DEFENSA DE ZARAGOZA: *Memoria Anual. Curso académico 2012/2013*, Zaragoza, 2013, p. 21; UNIVERSIDAD DE ZARAGOZA: *Grado en Ingeniería de Organización Industrial. Información de resultados. Curso académico 2010/11*, Zaragoza, 2011, [http://titulaciones.unizar.es/ing-org-industrial-eupla/infor\\_resultados11.html](http://titulaciones.unizar.es/ing-org-industrial-eupla/infor_resultados11.html) [last visited 28.10.2015]; ESCUELA TÉCNICA SUPERIOR DE INGENIERÍA DE BILBAO: *Informe de Seguimiento del Título Grado en Ingeniería en Organización Industrial*, Bilbao, Universidad del País Vasco, 2013, p. 6; COMISIÓN ACADÉMICA DEL GRADO EN INGENIERÍA DE ORGANIZACIÓN INDUSTRIAL: *Informe de gestión 2010-2011: Grado en Ingeniería de Organización Industrial*, Valencia, Universidad Politécnica de Valencia, 2011, p. 1; UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIAS: *Autoinforme anual de seguimiento. Grado en Ingeniería en Organización Industrial. Primer curso académico*

Centre	Performance rate	Success rate	Academic year
<b>CUD Marín</b>	95,3	96	2010/11
University of Vigo	51,56		2010/11
University of Sevilla	40,24	68,9	2010/11
Jaime I University of Castellón	42,26		2010/11

Table 3. Comparison of the performance and success rates of cadets and students taking Mechanical Engineering degree courses at different Spanish universities.<sup>65</sup>

Therefore, while it can be concluded that the academic results obtained by cadets at the AGM are noticeably lower than those of students at other general military academies, it does not make sense to dub an education system in which students achieve success and performance rates of more than 80% a failure. To the contrary, these results are higher than those recorded for students on completion of their first year of any engineering degree course.<sup>66</sup> Antonio Elipe, professor of Applied Mathematics and Director of the CUD of Zaragoza, believes that the results obtained by cadets at the AGM since the implementation of the new model are “spectacular”, and that success rates are “considerably higher than those of the other centres attached to the University of Zaragoza”.<sup>67</sup> The same can be said of the AGA and the ENM, where success and performance rates have exceeded 90-95% since the implementation of the new education model.<sup>68</sup>

de implantación 2010/2011, 2003, p. 23; UNIVERSIDAD DE SEVILLA: Grado en Ingeniería de Organización Industrial por la Universidad de Málaga y la Universidad de Sevilla. Sistema de garantía de calidad del título, [http://www.us.es/estudios/grados/plan\\_227?p=6](http://www.us.es/estudios/grados/plan_227?p=6) [last visited: 28.10.2015]; VICERRECTORADO DE DOCENCIA, ORDENACIÓN ACADÉMICA Y TÍTULOS: Grado en Ingeniería en Organización Industrial. Resumen Informe anual de resultados Curso 2011-2012, Madrid, Universidad Rey Juan Carlos; VICERRECTORADO DE DOCENCIA, ORDENACIÓN ACADÉMICA Y TÍTULOS: Grado en Ingeniería en Organización Industrial. Resumen Informe anual de resultados Curso 2012-2013, Madrid, Universidad Rey Juan Carlos.

65 Data source: CENTRO UNIVERSITARIO DE LA DEFENSA DE MARÍN: Información de resultados. Curso 2010/11, [http://cud.uvigo.es/index.php?option=com\\_content&view=article&id=656&Itemid=108](http://cud.uvigo.es/index.php?option=com_content&view=article&id=656&Itemid=108) [last visited: 28.10.2015]; UNIVERSIDAD DE VIGO: Ingeniería Mecánica. Calidad, [http://www.uvigo.es/uvigo\\_es/titulaciones/graos/enxenaria-mecanica/calidade/](http://www.uvigo.es/uvigo_es/titulaciones/graos/enxenaria-mecanica/calidade/) [last visited: 28.10.2015]; ESCUELA POLITÉCNICA SUPERIOR DE SEVILLA: Grado en Ingeniería Mecánica. Memoria Anual 2010-2011 del Sistema de Garantía de Calidad del Título. Universidad de Sevilla, 2012; OFICINA DE LA PROMOCIÓN Y EVALUACIÓN DE LA CALIDAD: Grado en Ingeniería Mecánica, Castellón, Universidad Jaume I, [https://e-ujier.uji.es/pls/www/euji22702pi.indicadores\\_avap?est=222](https://e-ujier.uji.es/pls/www/euji22702pi.indicadores_avap?est=222) [last visited 28.10.2015].

66 GAN, Francisco J.: “Consideraciones sobre el primer curso de la enseñanza de formación de oficiales del Cuerpo General del ET”, op. cit., p. 89; CENTRO UNIVERSITARIO DE LA DEFENSA DE ZARAGOZA: Memoria Anual. Curso académico 2012/2013, op. cit., p. 17; FAURA, Félix; ALCOVER, Pedro M. y PASTOR, Juan A.: “Reflexiones sobre el nuevo modelo de enseñanza militar. Las claves del éxito académico”, Revista Española de Defensa, no. 299, 2013, p. 12.

67 Del Vado, Santiago F.: “Vuelta a las aulas”, op. cit., p. 10.

68 In a study carried out by a number of professors at the Polytechnic University of Cartagena

A number of reasons have been cited to explain why students of the CUD perform better than their peers taking the same degree courses at other universities. The main reason is the better academic grades of cadets, reflected in higher scores in the university entrance examination (PAU).<sup>69</sup> Other factors to take into account are the institutional culture of military academies, which promote values and traits such as integration, hard work, self-sacrifice, excellence and competition among students; the higher levels of motivation, dedication, commitment, interest and professional expectations of cadets, as well as higher class attendance levels, involvement in the subject and more demanding teaching staff.<sup>70</sup> Finally, we can also cite the greater dedication of CUD teaching staff to teaching,<sup>71</sup> the existence of a boarding school whereby students have to spend the night at the academies, attend classes and inexcusably sit the exams, as well as greater usage of the tutoring systems by students.<sup>72</sup>

In any event, it is important that everyone working in military education is to a greater or lesser extent aware that student drop-outs and failures are an inevitable

(UPTC), there were significant differences in the grades obtained in “Applied Computing” between students of the CUD San Javier and students taking the degree course in Industrial Engineering and Operations Research (IOI) at the Faculty of Industrial Engineering (ETSII) at the UPTC. In both cases, the aforementioned subject was taught by the same professors using the same teaching resources, curricula, level of exigency and assessment criteria. See: ALCOVER, Pedro M.; PASTOR, Juan A.; GUILLAMÓN, Antonio y GARCÍA LAENCINA, Pedro J.: “Una experiencia docente en el nuevo modelo de formación militar”, *Revista de Aeronáutica y Astronáutica*, no. 824, 2013, pp. 448-452. The final results obtained by the two groups of students are shown below:

CENTRE	N	Grades					
		No show	Fail	Pass	Very good	Excellent	Distinction
CUD San Javier	75	0	5 (6.7%)	8 (10.7%)	15 (20%)	43 (57.3%)	4 (5.3%)
ETSII-UPCT	136	64 (47.1%)	46 (33.8%)	4 (2.9%)	8 (5.9%)	12 (8.8%)	2 (1.5%)

69 CENTRO UNIVERSITARIO DE LA DEFENSA DE ZARAGOZA: *Memoria Anual. Curso académico 2013/2014*, Zaragoza, 2014, p. 39. The following data evidences this situation: in the 2013/2014 academic year, the minimum entry grades were 11.505 for the AGA (the highest of the Spanish university system), 10.732 for the ENM and 10.496 for the AGM. See: FAURA, Félix; ALCOVER, Pedro M. y PASTOR, Juan A.: “Reflexiones sobre el nuevo modelo de enseñanza militar. Las claves del éxito académico”, *op. cit.*, pp. 12 y 13. And also: DEL VADO, Santiago F.: “Vuelta a las aulas”, *op. cit.*, p. 10.

70 ALCOVER, Pedro M.; PASTOR, Juan A.; GUILLAMÓN, Antonio y GARCÍA LAENCINA, Pedro J.: “Una experiencia docente en el nuevo modelo de formación militar”, *op. cit.*, pp. 446-453; FAURA, Félix; ALCOVER, Pedro M. and PASTOR, Juan A.: “Reflexiones sobre el nuevo modelo de enseñanza militar. Las claves del éxito académico”, *op. cit.*, p. 12.

71 CENTRO UNIVERSITARIO DE LA DEFENSA DE ZARAGOZA: *Memoria Anual. Curso académico 2013/2014*, *op. cit.*, p. 39.

72 DEL VADO, Santiago F.: “Vuelta a las aulas”, *op. cit.*, p. 10.

part of the education process, and even more so at third level education, and that this is no reflection on the quality of teaching or the teacher giving the course. Military professors must be aware that one of their main missions is the assessment of student learning and that, in this respect, they must abide by the principles of justice and equality which govern their activity on two fronts;<sup>73</sup> hence, students should be assessed in as fair and objective a way as possible and without granting them more concessions than those strictly provided for in the relevant regulations. This does not mean that drop outs and failures should be encouraged, but simply that they should strictly comply with the regulations governing student assessment and the internal regime of the CDM. We should be aware that the opposite -subjectivity, favouritism, lack of justice and equality- demotivates the teaching staff and other students, diminishes the quality of education and leads to inadequately prepared professionals. In this regard, let us not forget that the main goal of military training is to prepare the student for the effective performance and exercise of his duties, functions and powers in the future.<sup>74</sup> In this challenge, the instructor's ability to motivate and set an example for his students plays a decisive role, as does the latter's ability to be conscious of and to take responsibility for their behaviour and the consequences of their hard work and self- sacrifice or the lack thereof.

### One well prepared teacher is as good as two

As professor Eric A. Hanushek, an expert on Education Policy at Stanford University, has stated, academic success largely depends on the training of the teaching staff.<sup>75</sup> In this vein, the conclusions of the McKinsey Report, which analyses the world's best performing school systems on the basis of the OECD's Programme for International Student Assessment or the controversial PISA Report, suggests that the quality of a school system is determined by the quality of its teachers.<sup>76</sup> It comes as no surprise therefore that, in the opinion of school counsellors and principals, one of the causes of the currently high drop-out rates in the Spanish school system is the lack of pedagogical training on the part of teachers.<sup>77</sup> When this is applied to university education,

73 As a military officer (pursuant to Article 18 of the ROFAS) and as a teacher (pursuant to Article 1.b of Organic Law 2/2006 on Education).

74 Article 43.1 of Law 39/2007 on the Military Career, *op. cit.*, p. 47347.

75 SILIÓ, Elisa: "El éxito académico depende de la formación de los profesores", *El País*, 6 May 2013, [http://sociedad.elpais.com/sociedad/2013/05/06/actualidad/1367842828\\_577081.html](http://sociedad.elpais.com/sociedad/2013/05/06/actualidad/1367842828_577081.html) [last visited: 28.10.2015].

76 BARBER, Michael and MOURSHED, Mona: *How the World's Best-Performing School Systems Come Out On Top*, Washington, McKinsey & Company, Social Sector Office, 2007, p. 16.

77 FERNÁNDEZ ENGUITA, Mariano, MENA, Luis y RIVIERE, Jaime: *Fracaso y abandono escolar en España*, Colección Estudios Sociales, núm. 29, Barcelona, Fundación "La Caixa", 2010, pp. 167-168.

there is a positive correlation between the training of the teaching staff and students' academic performance.<sup>78</sup>

According to the provisions of the Royal Instructions for the FAS, throughout their professional career, military instructors have to continuously strive to keep their knowledge up-to-date. Firstly, because it is the duty of every military officer to attain the highest possible level of professional competence<sup>79</sup> and, secondly, as an instructor he has to strive to achieve the highest possible level of prestige and set the best example for his students through a "profound knowledge of the subject matter he teaches, intellectual rigour, methodology, constant work, professional competence and teaching ability".<sup>80</sup>

Professional competence and teaching ability are essential requirements for teaching, as set out in Article 73.4 of the Law on the Military Career and in Article 6 of the Regime for Military Teaching Staff. Both regulations cite officially approved qualifications and training for the subject the instructor is to give as essential teaching skills, in addition to professional experience and the pedagogical skills required in each case. The requirement of teaching ability is also provided for in Article 7 of the Regime for Military Teaching Staff, which states that "having or being in a position to obtain a certificate of proficiency in teaching techniques is a requirement for the exercise of teaching duties".<sup>81</sup>

On this point, the importance of teacher training and preparation in acquiring the necessary skills for the exercise of their work is highlighted, and it is envisaged as both a right and an obligation. As a right, Article 25 of the aforementioned Regime cites the taking of courses and participation in other activities as a means of keeping specific knowledge up-to-date and improving one's teaching and research skills.<sup>82</sup> As an obligation, Article 128 of the ROFAS states that "military officers will take full advantage of the resources and opportunities provided to them by the FAS to receive ongoing training and develop professionally through teaching, instruction and training, and devote all their efforts and abilities to achieving this".<sup>83</sup>

The obligation of the teacher to receive ongoing training and improve their skills shall be facilitated through the provision by FAS commanders of every possible facility, provided this is not to the detriment of the needs of the service. On this point,

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78 GARBANZO, Guiselle M.: "Factores asociados al rendimiento académico en estudiantes universitarios, una reflexión desde la calidad de la educación superior pública", *Revista Educación*, 31(1), 2007, p. 57.

79 Articles 25 and 26 of Royal Decree 96/2009 approving the ROFAS, *op. cit.*, p. 13015.

80 *Ibid.* Article 124, pp.13027.

81 Ministerial Order 98/1994 on the Regime for Teaching Staff of the CDM, *op. cit.*, p. 6550.

82 *Ibid.*, p. 6553.

83 Royal Decree 96/2009, approving the ROFAS, *op. cit.*, p. 13028.

military teaching authorities and the directors of the CDMs shall facilitate teachers' access to both civil and military training courses, seminars and conferences on the subjects or modules they teach.

However, obtaining certification of proficiency in teaching poses a major challenge for military teaching staff. There are currently two ways of obtaining this: validation by the education authorities of the relevant army of the Certificate of Proficiency in Teaching (*Certificado de Aptitud Pedagógica*) issued by a Spanish university, or the completion of courses on teaching proficiency organised by the Military School of Educational Sciences (EMCE). Despite this, a significant number of military instructors do not have this certificate, given that the number of places made available on courses each year is not enough to meet current demand. Furthermore, when places are allocated for these courses, criteria such as seniority, rather than necessity, are often awarded more credits, meaning that newer teachers can take years to obtain this coveted certificate. To resolve or address these issues, the EMCE regularly organises additional courses on teaching proficiency, with the on-site classes being provided at the CDMs themselves.

### The importance of postgraduate studies in military education

Postgraduate training should be one of the primary goals of any education system in order to enhance the value of its training processes and promote intellectual, humanistic, cultural, scientific and technical development.<sup>84</sup> However, having postgraduate studies is not cited as one of the requirements for CDM teaching staff in higher and advanced training; nor, indeed, for those in higher National Defence studies. In this regard, we can refer to the provisions of current legislation on higher education - military education's natural counterpart in the national education system. Organic Law 4/2007 on Universities provides that, except for associate and visiting professors, all other teaching staff at Spanish public universities shall have doctoral studies, and that this is also a prerequisite for access to all official university professor categories.<sup>85</sup>

The number of military instructors with postgraduate studies is limited at all levels of military education. This is particularly noticeable in the case of higher military education, given its similarity to undergraduate university education, and contrasts with civilian teaching staff working at the CUDs, most of whom have completed or

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84 SUÁREZ, Benjamín: El posgrado en las universidades españolas hoy, 2005, p. 1, [http://www.unex.es/organizacion/servicios-universitarios/oficinas/occe/archivos/ficheros/documentos/promotores\\_bolonia/PostgradoUniv.pdf](http://www.unex.es/organizacion/servicios-universitarios/oficinas/occe/archivos/ficheros/documentos/promotores_bolonia/PostgradoUniv.pdf) [last visited: 28.10.2015].

85 Organic Law 4/2007 amending Organic Law 6/2001 on Universities, Boletín Oficial del Estado, no. 89, 2007, pp. 16241-16260.

are completing doctoral studies.<sup>86</sup> In the bid to achieve a better quality military higher education system, encouraging military teaching staff to complete university specialisation and postgraduate studies would be a step in the right direction.

Against this, we could argue that there is no regulation that obliges military instructors to complete these studies, that military teachers do not have enough time, unless they do so outside of working hours, and that commanders do not provide enough facilities to enable the carrying out of these studies. With regard to the first argument, let us recall what we mentioned earlier about the importance of the training and preparation of teaching staff if we are to achieve quality teaching. There is no greater preparation or training for a military instructor than a postgraduate diploma in the subject he teaches, whether this is leadership skills, the economy of defence, CBRN defence, history, organisation or military tactics. On the other hand, the second argument is irrefutable: combining teaching with other military posts and functions is an arduous and complicated task that many military professionals have to cope with on a daily basis, and this ties in with the issue of full-time dedication, which we will address later on. Finally, with regard to the lack of facilities given to military teaching staff for the completion of postgraduate studies, it is the commander's responsibility to enable the staff to take postgraduate studies, and even more so if these are given outside the military academic circle.

Nowadays, it is relatively easy for members of certain forces and ranks (regular corps, commissaries, reserve officers, etc. ) to be accepted for postgraduate studies, given that their undergraduate degrees allow them direct access to this type of training in their respective fields and specialities. And it is also easy for members of the FAS who have completed undergraduate, diploma or degree courses at universities. However, for other military officers with qualifications equivalent or comparable to university studies (officer ranks), this has not been easy in the past, largely on account of the lack of postgraduate programmes in areas and subjects directly related to the FAS.

To remedy these shortcomings, the Ministry of Defence has taken a number of important measures, such as the recent introduction of a Masters in "Decision-making Techniques" for the 2015/16 academic year - the first postgraduate course promoted by the Ministry and provided by the University of Alcalá with the goal of training experts in the areas of Statistics, Operations Research and Sociology of the FAS.<sup>87</sup> The

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86 As an example, of the 98 instructors at the CUD in Zaragoza during the 2013/14 academic year, 79 were doctors, 40 were university professors and researchers on a full time contract certified by the National Quality Assessment and Accreditation Agency of Spain (ANECA) and 6 were tenured professors. For more information, see the Annual Report of the CUD of Zaragoza for the 2013/2014 academic year, p. 29.

87 This masters, a blended learning programme with 60 ECTS credits, was officially launched on 15 September 2015, and is given by teaching staff of the CUDs of Zaragoza and San Javier. There are nine students on the first course from the three branches of the armed forces. For more information, visit: <http://www.cud.upct.es/index.php/component/content/article/1-latest-news/317-defensa-inaugura-el-master-en-tecnicas-de-ayuda-a-la-decision> [last visited: 28.10.2015].

agreements signed with various universities to promote the provision of subjects related to security and defence are also worth a special mention. Through different centres and bodies, the Ministry of Defence has signed partnership agreements with numerous university institutions for the carrying out, among other things, of postgraduate courses in different areas of knowledge related to the FAS.<sup>88</sup> On this point, we should draw your attention to the magnificent relations between the Complutense University of Madrid and the Higher Center for National Defence Studies (CESEDEN), which has led to initiatives such as the creation of the “Almirante Don Juan de Borbón” Chair in National Defence and Security Studies and the provision of different postgraduate courses, such as a masters in “Communication in Defence and Armed Conflict and in “Security and Defence Studies”. Furthermore, the University of Zaragoza has been running a masters in “Global Security and Defence” for years and the University of Granada offers, through a partnership agreement with the Command of Training and Doctrine (MADOC), masters in the “Phenomenology of Terrorism” and in “Research and analysis methodologies and techniques in security and defence studies”. Finally, since its creation in 1997, the Instituto Universitario General Gutiérrez Mellado (IUGM) - a research and teaching centre specialised in issues related to peace, security and defence - in conjunction with Spain’s National University of Distance Education (UNED), offers a wide variety of postgraduate courses, including several expert and specialist courses and masters programmes in “Efficient management of defence resources and public administration” and “The challenges of peace, security and defence”, the latter being an official qualification allowing direct access to the UNED’s Peace, Security and Defence doctoral programme.

Another measure that has been proposed to facilitate access by members of the FAS to postgraduate studies -both masters and doctoral studies- is to provide these at the actual CUDs, a measure that is provided for in Article 51 of the law governing the Military Career, although it has yet to be implemented. Turning the courses given by the CESEDEN into postgraduate studies through the signing of partnership agreements with universities and providing access to these courses and higher military studies to staff in all areas who hold a university qualification might be another positive step towards promoting postgraduate studies in the FAS, as would the creation of a postgraduate school specifically for the military, thus allowing military officers to further their academic, professional and research training.<sup>89</sup>

These measures should obviously be complemented with the adoption by the Ministry of Defence of other measures to help military teaching staff to access and carry

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88 LAGUNA, María P. y VILLALBA, Aníbal: “Universidad y Fuerzas Armadas: los estudios de posgrado”, en: *Los estudios de postgrado en las Fuerzas Armadas, Monografías del CESEDEN*, no. 103, Madrid, Centro Superior de la Defensa Nacional, 2008, pp. 129-133.

89 GÓMEZ ÁLVAREZ, Ivana: “Estudio comparado de la legislación de posgrado en la universidad (Ministerio de Educación y Ciencia) y las Fuerzas Armadas (Ministerio de Defensa)”, in: *Los estudios de postgrado en las Fuerzas Armadas, Monografías del CESEDEN*, no. 103, Madrid, Centro Superior de la Defensa Nacional, 2008, p. 77.

out postgraduate studies, such as the granting of paid leave. However, current regulations are not very propitious in this respect, and merely provide for two types of study leave: one, of up to 40 working hours, where the student receives only the basic pay, and the second, of up to three months or 90 calendar days, “without any pay whatsoever”.<sup>90</sup> As is to be expected, many professionals interested in taking postgraduate studies are discouraged by these conditions.

### Research is not just for scientists

Although the common belief that teaching staff have to engage in research if they are to be good teachers has been questioned by some authors,<sup>91</sup> it is a fact that research and teaching are closely related in the current higher education system.<sup>92</sup>

In the area of military education and training, current legislation recognises the importance of research when it states that it is as much a duty as a right of the teacher. On the one hand, military teaching staff are entitled to “exercise their teaching and *research* functions using whatever methods they deem appropriate from among approved teaching curricula, programmes and criteria”.<sup>93</sup> On the other, one of their basic duties is to “practise teaching and carry out *research* in accordance with the curricula, programmes and criteria laid down by the centres or equivalent academic departments and bodies”.<sup>94</sup>

Research is the cornerstone of military education, and it is a magnificent instrument for the training and preparation of teaching staff. Indeed, research is one of the main criteria used by the ANECA for the accreditation and recognition of university teaching staff and for assessing the quality of the CDMs.<sup>95</sup> And let us not forget that

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90 Order DEF/253/2015 regulating the regime for holidays, leave and reduction in working hours for members of the Armed Forces, Boletín Oficial del Estado, no. 42, 2015, p. 13201.

91 For example, TERENCEZINI, Patrick T.: “Research and practice in undergraduate education: And never the twain shall meet?”, Higher Education, 38, 1999, pp. 33-48; SANCHO, Juana M.: “Docencia e investigación en la universidad: una profesión, dos mundos”, Educar, 28, 2001, pp. 48-51.

92 Proof of this are the 62 references made to the term “research” in Organic Law 4/2007 amending the Universities Act of 2001. Article 39 of this law literally states that “scientific research is an essential foundation for teaching” (p. 16247).

93 Ministerial Order 98/1994 on the Regime for Teaching Staff of the CDM, op. cit., Article 25, pp. 6553-6554.

94 Ibid., Article 26, p. 6554.

95 For more information, see: AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN, ANECA: Programa de Evaluación de Profesorado para la contratación. Principios y orientaciones para la aplicación de los criterios de evaluación, 2007; MINISTERIO DE DEFENSA Y AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN, ANECA: Evaluación del sistema de enseñanza militar. Anexo 1: Modelo para la evaluación de los

the quality of a teacher's research brings prestige to the education centres they belong to and are a beacon for "recruiting" the best students.<sup>96</sup>

The military education and training system should facilitate and promote research by its staff in order to comply with what the regulation expects of staff in this regard. However, if this is to occur, two obstacles will have to be overcome: firstly, the limited facilities provided for in current legislation, apart from the provisions of Article 32 of the Regime for Military Teaching Staff, which provides for the granting of leave for research purposes but *solely* to tenured professors who have been at the CDM for at least six years.<sup>97</sup> A second drawback is the military instructor's obligation to reconcile his teaching duties with the many other functions and activities inherent to his position or posting, thus leaving him little time to devote to research.

To conclude this section, and on the subject of the quality of the teaching staff and of the training these provide, we must also mention the importance of what the University Act calls "knowledge transfer";<sup>98</sup> i.e., the dissemination of the findings of research studies so that these can be brought to the attention of and shared with other researchers and teachers. If, as we stated earlier, there are few military instructors engaged in research, there are even fewer who publish articles and works on their professional fields in scientific journals and professional publications. In this regard, there is a wide array of scientific publications to which military officers can contribute, thus complying with the quality standards and publication requirements laid down in the regulations.<sup>99</sup>

### Full-time engagement. A utopia or a necessity?

Article 91 of the Law on Education envisages up to twelve different duties for teachers, including the planning and teaching of subjects; the management, support and assessment of education processes; the tutoring and provision of career, academic

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Centros Docentes Militares, 2007, pp. 21, 42, 105-106.

96 PULIDO, Antonio: "Indicadores de calidad en la evaluación del profesorado universitario", *Estudios de Economía Aplicada*, 23(3), 2005, p. 671.

97 Ministerial Order 98/1994 on the Regime for Teaching Staff of the CDM, *op. cit.*, p. 6556.

98 Organic Law 4/2007 amending Organic Law 6/2001 on Universities, *op. cit.*, pp. 16247, 16250, 16252.

99 For more information, visit: <http://dialnet.unirioja.es/revistas> [last visited: 28.10.2015]. In addition, the Internet portal devoted to Defence Culture provides an extensive list of professional journals published by the MINISDEF (<http://www.portalcultura.mde.es/publicaciones/revistas/>) [last visited: 28.10.2015]. In the specific area of the Ground Forces, see the article by RUÍZ BARANCO, José L; VALENCIA, José J. and MARTÍN, Arturo: "Escribir...: ¿Dónde? Las publicaciones en el Ejército de Tierra", *Revista Ejército*, 873, 2013, pp. 84-90.

and professional guidance to students, the intellectual, emotional, social and moral development of students; promotion, organisation and participation in complementary activities run by the centre; coordination of any educational, management and counselling activities that might be entrusted to the instructor, participation in the centre's general activity and in internal and external assessment plans; research, experimentation and the continuous improvement of education processes.<sup>100</sup> Most of these functions are not unusual for a military instructor, and it would therefore be a serious mistake to assume that his work begins and ends in the classroom, where he teaches certain subjects to his students.

Teaching is an active and complex process that requires the teacher's full-time dedication and engagement in numerous tasks directly related to his work, such as the preparation of classes, notes and exams; completing reports, correcting tests, assessing and assigning grades to students, directing academic assignments, participating in interdepartmental meetings, giving tutorials to students, meetings with other teachers, tutors and staff from the Education Guidance Office, writing reports, providing specific services (service professor), attending and taking part in academic activities and events (talks, seminars) and extra-curricular ones (visits, secondments, etc.). And very often all of this has to be carried out alongside other non-academic duties or positions, which means that many military instructors find it extremely difficult to perform their teaching duties and tasks in an appropriate manner because they simply do not have enough time.

The only possible solution to these difficulties is to strictly apply the full-time engagement criteria for military instructors, especially those who oversee education and training centres for officers and NCOs.

### The vocational aspect of military education

Traditionally it was believed that teaching was an art form or a vocation; a "profession that is in many respects an art", a "profession-craft-vocation".<sup>101</sup> From this viewpoint, teaching is seen more as an art than a technical or scientific activity,<sup>102</sup> and the vocation to teach is an essential aspect of the person holding the position of teacher.<sup>103</sup>

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<sup>100</sup> Organic Law 2/2006 on Education, *op. cit.*, p. 17183.

<sup>101</sup> LÓPEZ CALVA, Martín: "«Mi rival es mi propio corazón...» El docente universitario y sus exigencias de transformación", *Revista Latinoamericana de Estudios Educativos*, XXXIII (2), 2003, pp. 59-60.

<sup>102</sup> LIEBERMAN, Ann and MILLER, Lynne: *Staff development for education on the '90s: New Demands, New Realities, New Perspectives* (2nd. Edition), New York, Teachers College Press, 1991.

<sup>103</sup> HANSEN, David T.: *The call to teach*. New York: Teachers college press/Columbia University, 1995.

Without forgetting that many other factors influence the dedication and performance of a teacher, such as training, motivation and satisfaction - and that when a military officer makes the decision to work in teaching the decision is influenced by other factors, such as the location of the education centre he applies to be posted to and the chances of obtaining certain financial and social benefits (prestige, wage supplements, etc.), it is clear that vocation is a fundamental aspect of military education. However, this does not mean that it is a prerequisite for the teacher. In fact, during their careers, many military officers find themselves forced to perform teaching activities for reasons that have nothing to do with vocation, and they do so with excellent results.

We are not going to get involved in a debate as to whether vocation is innate or acquired and developed throughout a lifetime. Nobody was born being a good teacher and every teacher who has to face the complexity of a classroom and a group for students for the first time does so with many doubts and little experience. Practice and experience are essential in education, therefore professionals who - regardless of their positions and years of service - show a strong vocation and calling for teaching, should be given opportunities in this respect. This could be achieved with an appropriate policy for assigning teachers to vacancies in CDMs that value the preparation, vocation and willingness of the applicant; given that, as Ávila has advocated, if the aim is to achieve excellence in military training, teaching destinations should not be seen as just any “old” destination.<sup>104</sup>

Obviously, military officers who are new to teaching should be supervised by their heads of studies, department managers and teachers with more experience in the area or subject.

### **Motivation and satisfaction of the teaching staff are key in military education**

Education psychology has studied the influence of numerous internal or personal variables on the teacher's job performance, his interpersonal relations and student performance. These variables included attitude, concern, behaviour and, above all, motivation.<sup>105</sup> In the opinion of Professor Fernández Enguita, who lectures on Sociology at the University of Salamanca, teacher satisfaction and motivation are the key to academic success.<sup>106</sup> These factors are of paramount importance in the current education context and most especially at university level.<sup>107</sup>

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104 Ávila, Santiago: “A vueltas con la reforma de la enseñanza superior militar”, *op. cit.*

105 LIEBERMAN, Ann and MILLER, Lynne: *Staff Development for Education in the '90s: New Demands, New Realities, New Perspectives*, *op. cit.*

106 MESTRES I SALUD, Laia: “Fracaso y éxito académico: la importancia del profesorado”, *Educaweb*, 12 December 2011, <http://www.educaweb.com/noticia/2011/12/12/fracaso-exito-escolar-importancia-profesorado-5148/> [last visited: 28.10.2015].

107 GALÁN, Arturo; GONZÁLEZ, M. Ángeles y ROMÁN, Marcos: “La irrupción del factor comunitario en el perfil del profesorado universitario”, *Bordón*, 64(3), 2012, pp. 133-148.

In the field of military education and training, we can identify a number of elements affecting teacher motivation and satisfaction. In an exploratory study carried out on a sample of 49 teachers at a centre for higher military education, teaching staff were asked to rate job satisfaction on a purpose-designed scale. It was found that the factors that caused the most job dissatisfaction were, in this order: meagre social benefits, salary, lack of recognition and rewards, inappropriate organisation of the work and distribution of tasks, the quality of the curricula they gave and the limited opportunities for training and retraining.<sup>108</sup> The results were modulated by other variables such as the type of subject they taught (theoretical or practical), their posting (whether voluntary or forced), the time they had been at the centre and separation from their families. The measures the teachers proposed to improve their job satisfaction and motivation included greater social advantages and cash incentives, better streamlining of tasks and working hours, more employees at the centre and more training opportunities. From the point of view of the quality of the teaching, another measure that would have a positive impact on teacher satisfaction and motivation would be the adoption of an appropriate “policy” for the assignment of instructors to departments and subjects to instructors, based solely on the candidate’s training and professional experience.

### Appropriate recognition for military instructors

Of all the variables underlying the problem of teacher motivation and satisfaction, the lack of recognition for their work is one of the most important and, moreover, a cause of stress and burnout at all levels of education.<sup>109</sup>

Article 104 of the law on Education stipulates that the education authorities shall ensure that teachers receive treatment, appreciation and respect in accordance with the social importance of their work, for which purpose priority shall be given to improving their working conditions and fostering social appreciation and recognition of the teaching profession.<sup>110</sup> Obviously, the esteem it is intended

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108 GABINETE DE ORIENTACIÓN EDUCATIVA: Análisis del grado de implicación y satisfacción del profesorado, San Javier, Academia General del Aire, 2006 [not edited].

109 See: MANASSERO, María. Antonia; VÁZQUEZ, Ángel; FERRER, Victoria A.; FORNÉS, Joana; FERNÁNDEZ, María C. y QUEIMADELOS, Milagros: Estrés y burnout en la enseñanza, Palma de Mallorca, Edicions UIB, 2003, p. 27; SILVERO, Marta: “Estrés y desmotivación docente: el síndrome del «profesor quemado» en educación secundaria”, Estudios sobre Educación, 12, 2007, p. 126; SMITH, Max y BOURKE, Sid: “Teacher stress: examining a model based on context, workload, and satisfaction”, Teaching & Teacher Education, 8, 1992, pp. 31-46; SORCINELLI, Mary D.: “New and Junior Faculty Stress: Research and Responses”, New Directions for Teaching and Learning, 50, 1992, pp. 27-37; THODE, María L., MORÁN, Silvia y BANDERAS, Ana: “Fuentes de malestar entre el profesorado de E.G.B.”, Revista Española de Pedagogía, 193, 1992, pp. 545-561.

110 Organic Law 2/2006 on Education, op. cit., p. 17185.

to garner for civilian teaching staff should also be extended to military instructors, as set out in Article 2 of the recently published Order DEF/810/2015, where one of the guiding principles of military education and training is the consideration of the teaching profession as “an essential factor for the quality of military education, recognising the work carried out by the teaching staff and supporting them in their duties”.<sup>111</sup> In addition to the foregoing, Article 8 of the Regime for Military Teaching Staff carries the title “Recognition of the teaching profession” and specifically stresses the importance of education and training in preparing and supporting the forces so that “the points assigned to teaching destinations during assessment cycles shall explicitly take account of the type of destination, how it is assigned, the skills demanded for performance of the teaching function and the specific duties performed in teaching destinations”.<sup>112</sup> However, this condition is not explicitly provided for in Ministerial Order 17/2009, which sets out objective rules for use in the assessment processes of professional military personnel.<sup>113</sup>

In any event, teaching destinations in military education centres are not currently among the highest rated in assessment processes.<sup>114</sup>

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111 Article 2. f) of Order DEF/810/2015, op. cit., p. 38781.

112 Ministerial Order 98/1994 on the Regime for Teaching Staff of the CDM, op. cit., p. 6550.

113 Ministerial Order 17/2009 which sets out objective rules for use in the assessment processes of professional military personnel, Boletín Oficial de Defensa, no. 83, 2009, pp. 5415-5421.

114 Hence, for the assessment of personnel, the Army Ground Forces have established seven destination groups (A, B, C, D, E, F, G), each of which has been assigned a score: 0.60 is assigned for every month spent at a destination for destinations in Group A, and 0.40 for destinations in Group G. The destinations for instructors at National Defence training, improvement and higher education centres are included in Group C, where the score assigned is 0.55 points/month. For more information, see Resolution 500/00469/15 of the Chief of Staff of the Army Ground Forces, amending the scorecards of the different assessment factors set out in the appendices to the Annex to Instruction 03/2012, Boletín Oficial del Ministerio de Defensa, no. 9, 2015, pp. 833-834. In the case of the Army Air Force, the seven destination groups are known as A1, A2, B1, B2, C, D and E, and tenured professors and instructors at training academies and schools come under Group B1 (0.55 points/month), as set forth in Instruction 33/2013, of the Chief of Staff of the Army Air Force, setting out the scores and weighted formulas to be used in accessing the Army Air Forces, Boletín Oficial del Ministerio de Defensa, no. 113, 2013, pp. 12779-12782. For military instructors posted to Naval Academies, the same five destination groups exist as for the Air Force (A1, A2, B1, B2, C, D and E), but Group B1 (0.55 points/month) only includes teaching staff at the Navy Military Academy, with all other military instructors assigned to Group B2 (0.52 points/month). See Instruction 4/2012 of the Chief of Staff of the Army Naval Forces, setting forth implementation guidelines for the assessment processes for navy military personnel. Boletín Oficial del Ministerio de Defensa, no. 23, 2012, pp. 2456-2459. Attracting our attention in particular are the rules for the assessment of destinations that apply to the staff of the Military Medical Corps (Instruction 26/2013, of the Undersecretary of Defence, approving the points that will apply in the assessment processes of Common Corps of the Armed Force, Boletín Oficial de Defensa, no. 87, 2013, pp. 9480-9503). As stated in section 2.1 of Annex III of the aforementioned Instruction, with the exception of the destinations in the Military Medical Academy (Group B, valued at 0.58 points/month), the destinations for the teaching staff in the Military Medical Corps are the lowest rated of all destinations (Group D, 0.50 points/month).

Logically, it can reasonably be concluded that the lack of recognition for their work and self-sacrifice, together with other factors mentioned in this article such as the great variety of tasks, excess workload, limited training opportunities, etc., do little to boost the motivation, satisfaction and morale of military teaching staff.

### Towards a total quality model

As stated at the beginning of this document, military education and training must be inspired by the same principles as the mainstream education system, which include “quality education for all students, regardless of their conditions and circumstances”.<sup>115</sup> This gives rise to the need for continuous self-assessment and improvement.

The quality of education cannot be measured solely by student satisfaction levels with the training received or how well it equips students to fulfil the requirements and duties they have to carry out at their next destination. While these criteria are an important part of quality self-assessment, they are not the only ones. In this regard, let us not forget that ANECA has identified five basic aspects to be used for assessing the quality of a CDM, namely: 1) organisation of the centre; 2) development of the curricula; 3) regime for the teaching staff; 4) regime for students and 5) the assessment, qualification and classification system.<sup>116</sup> This not only calls for an assessment of teacher activity, but also the obtainment of their opinions and experiences, given that nobody is as well versed as them in the intricacies of military education and instruction, its strengths and weaknesses, its advantages and shortcomings. On this point, ANECA uses the results of satisfaction surveys with teaching staff as information on which to base the assessment of the five aspects mentioned previously.<sup>117</sup> However, it is necessary to attach greater importance to the results of the surveys by including the teaching staff's opinion on the aspects assessed, possible weaknesses, and measures that can be taken to improve the quality of education and training.

Focusing specifically on teaching, it is important to point out that ANECA,<sup>118</sup> when compiling bases to support the CDM quality assessments, includes such important items as the OC-02A tables (takes account of the type and number of teachers *working full time* and part time, as well as the credits they teach); OC-02B (includes data such

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115 Organic Law 2/2006 on Education, op. cit., p. 17164.

116 Ministerio de Defensa y Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA): Evaluación del sistema de enseñanza militar. Anexo 1: Modelo para la evaluación de los Centros Docentes Militares, 5 de junio de 2007.

117 Ministerio de Defensa y Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA): Evaluación del sistema de enseñanza militar. Anexo 2: Guía para la autoevaluación de los Centros Docentes Militares, 2007.

118 Ibid.

as the number of *military professors and doctors* at the centre); RH-05 (the ratio of staff that has received *specific teacher training* to the total number of teachers at the centre); RH-06 (teaching staff participation in *research*, indicating the number of teachers engaged *exclusively* in research and the number of research projects that the centre is participating in) and RH-07 (the results of research work, including the number of patents, books and articles published, presentations given at national and international congresses and scientific awards won).

## CONCLUSIONS

Military education and training in Spain is integrated into the mainstream education system, and is therefore subject to the same principles, purposes and goals, including the quest to improve the quality of teaching and promotion of the work, training and recognition of teaching staff.

The quest for total quality in military education is reflected in the need for continuous self-assessment and the improvement of several basic aspects of teaching, namely the organisation of the education centre, the curricula, the assessment, qualification and classification system and student and teaching staff regimes. In this assessment process, the teacher plays a key role, given that his experience and knowledge is invaluable for identifying strengths and weaknesses and designing and implementing improvements. With regards the specific assessment of the teaching function, it should be borne in mind that there is a positive correlation between the quality of the teaching staff and the quality of the teaching they deliver; therefore, a number of improvements and proposals aimed at enhancing the preparation, training, motivation, satisfaction and -in short- quality of our teachers, should be implemented.

In the current socio-educational context, we consider it necessary to attach greater importance to the teaching of traditional FAS values, facilitating their assimilation and internalisation by students so that they can guide their conduct in the present and future. On the other hand, the full integration of military education and training into the mainstream education system, and especially at university level, calls for a change of perspective in view of school drop-out and failure rates. Recent changes to the military education model for officers have brought a considerable increase in the number of students who do not pass the curricula set and who must, therefore, repeat the year or leave the military academy. Despite initial reactions, the failure and drop-out rates of military cadets at the CUDs are noticeably lower than those of both public and private universities where the same studies are provided. This appears to be due not only to the quality and good academic performance of the students, but also to the distinctive characteristics of military academies as education institutes that promote cadet learning. In any event, let us not forget that undergraduate studies call for greater effort on the part of military cadets due to factors such as a higher academic loads, less time to study and the difficulty and complexity of certain subjects. Nevertheless,

both the Ministry of Defence and those who oversee education in the armed forces must be aware that even though a significant number of students do not manage to pass the curricula, this does not mean that the system or education model is a failure.

In the current panorama of reform that seeks excellence in military education, the appropriate preparation and training of military teaching staff is of paramount importance because it is a key factor for student success. Therefore, the training of military teaching staff should be encouraged, allowing them to acquire the necessary educational, professional and technical skills by taking the appropriate courses both in civil and military fields. An important point in this regard is that military teaching staff, and particularly those in higher education CDMs, are able to take specialisation and postgraduate courses. Indeed, the Ministry of Defence has signed numerous agreements with universities to allow them access to a wide variety of masters and doctorate programmes on the subject of security and defence.

Research is another cornerstone on which the quality of military education and teacher training are based. However, military teaching staff often receive insufficient facilities for this purpose, including a lack of resources and time to conduct it. To overcome this drawback, it is proposed that military training staff be allowed to devote themselves to research full time, as this would allow them to cope with the innumerable academic and non-academic tasks, functions and activities they are expected to complete.

As vocation is an important aspect in the work of any teacher, the policy for assigning destinations and vacancies to candidates should enable professionals with a genuine vocation for teaching to occupy posts in the military education system. Furthermore, vocation on the part of the teaching staff is also closely linked to other decisive factors in education such as motivation and satisfaction. Consequently, military education needs teachers with a vocation, who are highly motivated and satisfied with the work they carry out. On this point, there are numerous measures that the Ministry of Defence could take, from the provision of specific wage supplements (supplements for special dedication) and greater opportunities for training and retraining, to an appropriate organisation and distribution of the work, which could be achieved by assigning subjects to the most suitable teachers, and the better streamlining of tasks and working hours.

An essential requirement for job motivation and satisfaction among teaching staff is also recognition, by the military authorities, of the role of teachers and the important work they do. In this sense, teacher postings should be given special weight in military assessment processes based on criteria such as the type of destination the teacher is posted to, how it is assigned, the special skills required for the teaching post and the specific duties carried out.

In short, military education and training is a vocational profession that is little appreciated and recognised, but which still requires full dedication on the part of the teacher. Moreover, military teaching staff are expected to reconcile their teaching work with other duties and tasks inherent in their position and speciality, which often gives

rise to an excess workload and makes it difficult for them to apply themselves fully to their teaching duties. Consequently, it is important that the Ministry of Defence facilitate as much as possible the education and research work of military teaching staff, promote opportunities for professional development and afford them the same importance and recognition that the mainstream education system is aiming for and demanding of its own teaching staff.

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