Quality in Early Childhood Education: PETaL EMJMD

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Abstract

Early childhood education (ECE) stands as a priority for most international educative organizations and institutions that advocate for curriculums of excellence in the 21st century school (Delors, 1996 [1]; European Commission, 2019 [2]; UNESCO, n.d. [3]). It is an educational stage marked by two key peculiarities: teachers must have a high specialization in the area, and their training should include quality teaching practices. With this background, the Erasmus Mundus Joint Master's Degree (EMJMD) 'Play, Education, Toys and Languages' (PETaL) was designed and approved by the EC in 2018. Its main aim is to strengthen the professional development of educators who can approach ECE from its basic precepts, while incorporating the most innovative trends into the curriculum of this Master of excellence. The main objective of this study is to analyse the academic and professional profile of the two cohorts of applicants to PETaL EMJMD. We carry out an exhaustive quantitative scrutiny of data according to the academic and professional profile of the candidates by using Jamovi, (v. 1.2.5.) [4]. These variables are correlated with gender, level of English and the educational background of PETaL EMJMD applicants, which allow us to reflect and draw conclusions on the impact that this Master of excellence has and presumably will continue having at international university level regarding the international seek for quality ECE teacher training.

Keywords: *Early Childhood Education (ECE), Erasmus Mundus Joint Master Degree (EMJMD), Applicants, Quantitative Analysis, Quality Education.*

1. Theoretical Backdrop

The political agenda places Early Childhood Education (ECE) as a priority for international education institutions that advocate for quality curriculum in the 21st century school: (i) *The New Sustainable Development Agenda* (UN, 2015) [5] establishes as its goal number 4 to ensure quality education for all inhabitants of the planet. (i) The EC (2019) [2] report states that ECE is the foundation for lifelong learning and development. Ensuring quality ECE for the potential 31 million children in Europe under 6 (who should have access to it) must therefore be an obligation for all Member States. The specialized training of ECE teachers must cover specific areas aimed at the integration of key issues in today's society, namely: (a) Intercultural education as an essential means of training against prejudice, social stereotypes and cultural conflicts. (b) Multilingualism as a frame for communication among peoples (Gómez, 2016) [6]. (c) The unquestionable importance of play and toys as fundamental constructs for physical and cognitive development, as well as for the construction of the emotional world of the human being. These three topics constitute the essential themes of the Erasmus Mundus Joint Master Degree (EMJMD) *Play, Education, Toys and Languages* (PETaL) in an integrated curriculum, developing these areas which up to date had not been offered in a cohesive way by an international program of excellence.

The aim of this work is to establish a comparative analysis of the academic profiles of the 433 applicants of the first and second cohorts of students (2019-2021 and 2021-2023 respectively). The main criteria to evaluate PETaL EMJDM candidates are: 1. Level of English (min. B2). 2. University Degree with a background on education. 3. Professional experience related to PETaL key themes. Therefore, the following specific objectives were set:

 a. To analyse the academic profile of the applicants, considering if their university degree was specialized in education.
 b. To compare their level of English.
 c. To analyse the professional experience of candidates.
 d. To relate these data with the gender of applicants.

2. Methodology

The methodological procedure of this study was: (i) Opening of the EMJMD PETaL official platform (https://www.uco.es/petal-emjmd/#/login) for 3 months. (ii) Evaluation of the applications by PETaL Joint Academic Committee (JAC). (iii) Codification and quantitative analysis of the data obtained.

2.1. Description of the context and the participants

PETaL EMJMD has been specifically designed to facilitate learning among equals. It purposefully seeks for the best international students who, showing different cultures and languages, will interact positively in an academic context that is defined by being geographically, culturally and linguistically diverse: Spain, Portugal and Turkey.

The population of this research belongs to two groups of international candidates to PETaL EMJMD. Group 1 (cohort 19-21) was constituted by 220 applicants, ranged between 22 and 54 years old. In terms of gender, 80.45% were women (n = 177) and 19.55% were men (n = 43). Group 2 (cohort 21-23) was constituted by 213 applicants, whose age ranged between 21 and 51 years old. Regarding gender, 79.81% were women (n = 170) and 20.19% were men (n = 43).

2.2. Instrument

Our instrument obtained a Cronbach alpha of 0.911, showing thus high reliability (Oviedo and Campo-Arias, 2005) [7]:

Scale Reliability Statistics	
	Cronbach's α
scale	0.911

Table 1. Cronbach's Alpha of the instrument (own elaboration).

2.3. Procedure

An exhaustive scrutiny of the following variables has been carried out through Jamovi (v. 1.2.5.) [4]: (a) Academic profile: including adequacy of the university degree (education related) and level of English; and (b) Professional profile: work experience in ECE (specially related to one of the areas of the Master). These variables are correlated with the gender of PETaL EMJDM applicants.

3. Results

Our analysis has been divided into two different sets: academic and professional profile.

3.1. Academic profile

Data show the following academic profile for the two groups of PETaL EMJMD candidates:
- Group 1 (cohort 19-21 = 220 candidates):
  - University Degree: 74 candidates (33.64%) have a University Degree related to education, while 146 candidates (66.36%) do not show Degrees related to this field.
  - Level of English: 18 are natives (8.19%), 11 have a C2 level of English (5%), 94 have a C1 (42.72%), 84 have a B2 (38.19%), 12 have a B1 (5.45%), and 1 candidate has an A2 (0.45%).

- Group 2 (cohort 21-23 = 213 candidates):
  - University Degree: 87 applicants (40.84%) show a University Degree related to education, whereas 126 (59.15%) do not have an education-related University Degree.
  - Level of English: 34 candidates are natives (15.96%), 86 have a C1 level of English (40.37%), and 93 have a B2 (43.66%).

3.2. Professional profile:

Data also showing the following professional profile for the two groups of PETaL EMJMD candidates are as follows:
- Group 1 (cohort 19-21):

- Work experience in ECE (specially related to at least one of the areas of the Master): 161 (73.18%) candidates did not show any experience (either national or international) related to PETaL EMJMD key areas, whereas 59 (26.81%) proved it.

- Group 2 (cohort 21-23):
    - Work experience in ECE (specially related to one of the areas of the Master): 125 (58.68%) candidates did not show any experience (either national or international) related to PETaL EMJMD key areas, whereas 88 (41.31%) proved it.

These data will be correlated with the gender of candidates:
- Group 1: 80.45% were women (n = 177) and 19.55% were men (n = 43).
- Group 2: 79.81% were women (n = 170) and 20.19% were men (n = 43).

Thus, the data for group 1 (cohort 19-21) are summarized in Table 2:

Gender	Level of English	University Degree (education-related)	No.	%	Working experience PETaL- related	No.	%
Female	B2	Yes	25	11.36%	Yes	20	9.09%
		No	47	21.36%	No	52	23.63%
Male	B2	Yes	4	1.81%	Yes	4	1.81%
		No	8	3.63%	No	8	3.63%
Female	C1	Yes	30	13.63%	Yes	29	13.18%
		No	46	20.9%	No	47	21.36%
Male	C1	Yes	5	2.72%	Yes	2	0.9%
		No	13	5.9%	No	16	7.27%
Female	C2	Yes	3	1.36%	Yes	3	1.36%
		No	19	8.63%	No	19	8.63%
Male	C2	Yes	2	0.9%	Yes	1	0.45%
		No	5	2.72%	No	6	2.72%
		Total =	207	94.92%	Total =	207	94.03%

Table 2. Correlates for PETaL EMJDM cohort 19-21 (own elaboration).

Data for group 2 (cohort 21-23) are summarized in Table 3:

Gender	Level of English	University Degree (education-related)	No.	%	Working experience PETaL- related	No.	%
Female	B2	Yes	36	16.9%	Yes	32	15.02%
		No	38	17.84%	No	42	19.71%
Male	B2	Yes	8	3.75%	Yes	5	2.34%
		No	12	5.63%	No	15	7.04%
Female	C1	Yes	31	14.55%	Yes	29	13.61%
		No	51	23.94%	No	53	24.88%
Male	C1	Yes	8	3.75%	Yes	7	3.28%
		No	6	2.81%	No	7	3.28%
Female	C2	Yes	2	0.93%	Yes	8	3.75%
		No	12	5.63%	No	6	2.81%
Male	C2	Yes	2	0.93%	Yes	7	3.28%
		No	7	3.28%	No	2	0.93%
		Total =	213	99.94%	Total =	213	99.93%

Table 3. Correlates for PETaL EMJDM cohort 21-23 (own elaboration).

Moreover, we can also establish a general comparison regarding the nationality of applicants, which we gathered by continent.
- Group 1 (cohort 19-21): 50 Europeans; 105 Asians; 39 Americans ('The Americas' which includes Central, South and North America); and 26 Africans.

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- Group 2 (cohort 21-23): 12 Europeans; 143 Asians; 28 Americans ('The Americas' which includes Central, South and North America); and 30 Africans.

4. Discussion and Conclusions

PETaL is an innovative Master of excellence in the area of ECE whose main foundations are based on complementarity in terms of research and experience of the universities that constitute this European consortium. The theoretical bases described here offer the opportunity of high-quality training in the area, as well as the best professional practice which, complemented by the intercultural and linguistic richness of the context that permeates the PETaL curriculum, will provide students with knowledge of the most diverse, current and innovative forms of Early Childhood Education.

The data corresponding to the candidates of the two cohorts of PETaL show, in general terms, that there is a wide coincidence in the percentages of the parameters analysed for the two populations. Nevertheless, we will discuss further the main differences found.

Data from group 1 (cohort 19-21) do not show the total number of students (n = 220) because the required level of English is B2, a minimum which was proved by 207 students. The first difference then is found herein: Group 2 candidates meet the B2 language requirement established by PETaL, and a higher percentage of natives applied in the second round (= 15.96%). The level of English is a *sine qua non* requirement of the program because it is the language of communication among students, teachers and administrative staff. Additionally, 21st century societies have become multicultural and the increasing necessity to communicate with people from varied cultural and linguistic backgrounds has made English the *lingua franca*, following Crystal (2003) [8].

Regarding the academic background of applicants, the percentage of those candidates who showed an education-related Degree has increased for the second cohort (from 33.64% to 40.84%). This makes us think that applications by international students are becoming increasingly targeted to the candidates which PETaL EMJMD seeks. This idea is corroborated by the fact that the percentage of candidates who proved having a job related to PETaL key themes increased from 26.81% to 41.31% for the second cohort.

According to Szwed (2010) [9], most teaching positions are mostly occupied by women, a fact that is confirmed by our data. Most PETaL applicants are women (80.45% and 79.81% respectively for both cohorts), and the percentages on the level of English and working experience are higher for women than for men.

To conclude, PETaL EMJMD offers quality tertiary education to future professionals in ECE at the international level, thus fulfilling the objectives outlined by the highest international bodies (European Commission, UNESCO, UNICEF, UN, OECD) mentioned above, and reporting the professionalization of this education sector at the highest level. The analysis of the two cohorts of applicants proves that programmes such PETaL are necessary and sought by society at the international level, which understands that education must be at the most demanding levels in order to fulfil the expectations of a century that is defined by being in permanent change.

Acknowledgement

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