

Evaluation criteria

GUIDELINES AND CRITERIA FOR EVALUATING APPLICATIONS DURING THE FACE-TO-FACE SELECTION PROCESS

Overview

Several committees will be formed according to the number of applicants called to interviews. Each of these committees will be formed by university professors or professional experts in the disciplines assessed.

To score candidates in the face-to-face assessment process, evaluators will use a qualification grid with three aspects to assess (see below); each will have a specific weight.

Score

Each aspect evaluated must be scored with one of the number on the following scale:

Qualification	Score
Exceptional	8
Excellent	7
Very Good	6
Good	5
Normal	4
Mediocre	3
Poor	2
Very poor	1

Aspects evaluated

1. CANDIDATE'S POTENTIAL

Summary:

In order to have a general perception of the candidate's potential, experts will pay attention to "soft" skills, such as clear, consistent discourse and articulation of ideas, ability to present complex reasoning, team working; and capabilities such as independent reasoning, originality, entrepreneurship, leadership.

This section will mainly evaluate:

- **Originality:** ability of the proposal to think outside the box, making creative proposals or going further in depth into unexplored areas. Originality of the proposal and of the formula to achieve objectives sought.
- **Innovation:** capacity to create new knowledge or, in the case of professional proposals, to open new routes or formulas for creating wealth. Use of new technologies or innovative use of existing technologies. Use of new theoretical approaches to existing phenomena or problems or innovative use of pre-existing theoretical approaches.
- **Viability:** The project is ambitious and realistic; the capabilities of the applicant correspond to the scope of the project.
- **Expository clarity:** ability to clearly and precisely present complex reasoning and very specific matters, so that the proposal can be understood by a layman. Suitable wording, which avoids the use of specialised vocabulary.

This section will be weighted at 40%.

2. MOTIVATION AND STATEMENT OF PURPOSE

Summary: *the impact of the candidate's statement of purpose, understood in its broadest sense: capacity to contribute to transformation and improvement in areas such as the economy and the creation of wealth, society, culture, science, the quality of life of citizens, the environment or public policy.*

Experts will assess the impact of the statement of purpose for the candidate and the society; innovation, originality and feasibility; and candidate's capabilities with regard to the scope of the statement.

This section will mainly evaluate:

- The interests presented by the candidate should be consistent and is well-structured, and proposed studies should enroll in a career of wider scope, either professional or academic. In this sense, the candidate shall state, and the evaluator qualify, to what extent the conduct of studies for which a grant is requested is a necessary step in the direction indicated.
 - The candidate must justify the interest of the studies he/she wants to pursue, fitting center or centers where it is proposed to carry out such studies and international programmes and the country or countries selected.
 - The candidate must also argue the need to carry out the proposed statement of purpose to achieve the objectives presented.
 - It will be evaluated the progress of science and knowledge, wealth creation and possibility of transferring to others what they have learned during the studies as well as social return, in its broadest sense.
- The ideas presented should have a new and original character. Proposals that entail risk elements and creativity, whether hundred-typhus or business, especially the proposals that raise serious venture projects will be favoured. In this regard, the potential impact of the fellowship on the future career of the candidate will also be evaluated. The following will be taken into account:
- The correspondence between the level of excellence of the candidate and studies proposed, educational centre or research team where they want to carry out their project.
 - The cost of scientific, social or economic opportunity estimated if the candidate could not perform the proposed studies.
 - The fact that the candidate has not previously received similar possibilities to those facilitated with the fellowship from “la Caixa”.
 - In international programmes, the fact that the candidate has not previously completed post-graduate studies in the same destination country for which the fellowship is being requested.

This section will be weighted at 30%.

3. ACADEMIC AND PROFESSIONAL BACKGROUND

Summary: *the academic and professional background of the candidate in relation to the stage of the career they are in and opportunities, in this respect, they may have obtained.*

This section will evaluate:

- Quality and depth of curriculum in relation to applicants' possibilities. In this respect, younger candidates, therefore, cannot be penalised for accrediting incipient curricula.
- However, the scope, quality and depth of the activities accredited by the applicant (courses, attendance seminars, written and audiovisual publications, professional experience, etc.) will also be taken into account, as will the intellectual curiosity demonstrated to complete their curriculum.
- Consistent, focused trajectories throughout their entire course of studies. In the event that there are changes in their trajectory, they must be justified and rationalised.
- If the professional stages and, above all, academic stages are related to the study project presented and, if not, the reasons must be adequately explained.
- Not to penalise candidates who, because they were studying while working a steady job, may have gotten lower scores than other candidates.
- Expressly take into account the efforts shown by the candidate to overcome a difficult family situation, from a socioeconomic perspective.

This section will be weighted at 30%.

Prior expert scores

The marks obtained by the candidates during the remote assessment stage of the process will be taken into account in the face-to-face assessment stage. The standardised score from the remote assessment process will be added, as an expert score, to the other scores that face-to-face evaluators grant each application.

Similarly, all committee members will have access to the scores and evaluations assigned to each application by the evaluators having examined it in the remote assessment process. Likewise, they will have additional information on the position of the application within its remote assessment group, the number of applications evaluated within such group and the number of applications who pass the remote assessment process and any other information that the Fellowships Programme Office may consider relevant to the evaluation of applications.

To the extent they consider it appropriate, committee members may take into consideration such information when evaluating and scoring the candidates interviewed.

Content of the interview

The face-to-face interview will make it possible to detect, from more subjective, refined and subtle findings, the quality and consistency of the candidate evaluated.

During the interview evaluators may test the theoretical knowledge of the candidate, although it is not its main purpose. What is primarily sought is to check the soundness of the application, taking into account the above-mentioned aspects.

The face-to-face interview will seek to:

- Enlarge the information provided in the application, especially in relation to the candidate's academic and/or professional project.
- Ask about issues not mentioned in the application and which the committee considers relevant for evaluating the candidate's suitability to continue with the studies proposed.
- Evaluate the candidate's academic and/or professional potential.
- Evaluate their overall training, interests, concerns and curiosities for social, scientific, economic, cultural or artistic contexts, although not directly related to their studies.
- Assess their personal and academic maturity, motivation for carrying out the studies and the project proposed and the ability to express themselves clearly and convincingly defend the ideas expressed.

Formal aspects

- Interviews will last approximately 20 minutes.
- The candidate will not be told who the evaluators are that form part of the committee.
- The representative of the "la Caixa" Foundation will open the interview, which will begin in every case, by giving the floor to the applicant so that, within a couple of minutes, they can give a summary of their personal project. Then the other committee members will ask the questions they believe are relevant to properly assess the application.
- Interviewers should not ask questions about topics already reported in the application, unless they wish to clarify some aspect.
- Language: Interviews can be conducted in English or Spanish.
- Committees should endeavour to follow established schedules and be as punctual as possible with the candidates called.
- There is no established protocols for address (formal/informal) or if it is necessary or not to shake hands before or after the interview. These aspects are at the discretion of each committee or the spontaneity of the candidates. Nevertheless, the interviews should obviously be characterised by their seriousness, propriety and pertinence of the questions.

Face-to-face assessment process by committees

PROCEDURES

Introduction

This document sets out the procedure for evaluating and selecting candidates in the face-to-face stage by assessment committees.

The objective of this system is to ensure maximum efficiency and objectivity in the assessment of candidates, eliminating, as far as possible, the effect of bias in scorings and minimising the possibility that an expert's is determined by not strictly technical factors.

In this regard, the system established proposes:

1. Eliminating bias and scatter in the score by the same expert.
2. Trigger alarms if there is a significant inconsistency between experts' scores from the same committee for a single candidate.
3. Review the scores of candidates for whom there are significant differences between expert assessments.
4. Weigh for each candidate the scores of the various experts in relation to their degree of expertise with the subject evaluated.
5. Incorporate the previous evaluation of the experts who have scored each applicant in the remote assessment process.
6. Rescale the scores to be presented, after the previous procedure, following a scale between 1 and 8.

Score

Experts may indicate, prior to the actual assessment, their level of expertise with the discipline that corresponds to the projects submitted by each candidate of their committee.

Experts shall rate the various aspects of a candidate's application during the face-to-face assessment sessions.

The representative of "la Caixa" Foundation will be in charge of entering the scores from all the experts from their committee for each candidate into a database. Moreover, the final marks generated in the remote assessment process will be included. The system will consider the various levels of weighting of each aspect evaluated and arrive at a primary score for each candidate (mark_c) resulting from the calculation of the average mark of the scores from all experts from the same committee for a single candidate.

Standardisation

The standardisation of scores by one and the same expert in relation to all candidates he or she has evaluated will be performed according to the following procedure:

- The expert's mean mark will be calculated or that of the scores drawn from the remote assessment process ($mean_p$):

$$mean_p = \frac{\sum_{c=1}^n mark_{c,p}}{n}$$

Where,

p = expert P or remote assessment

n = number of the committee's candidates

mark = numerical score obtained by the candidate, resulting from the scores in the various sections, by that expert.

c = candidate C

- The standard deviation of that same expert or remote assessment in regard to all of that committee's candidates:

$$standard\ deviation_p = \sqrt{\frac{\sum_{c=1}^n (mark_{c,p} - mean_p)^2}{n - 1}}$$

- Finally, each expert's or remote assessment scores for each candidate evaluated are standardised:

$$new\ mark_{c,p} = \frac{mark_{c,p} - mean_p}{standard\ deviation_p}$$

The ratings drawn for candidates from the remote assessment phase have previously been standardised for all candidates associated with remote assessment panels associated with the same committee. This second standardisation, therefore, will be on previously standardised values.

Alarms

In the event that, once each expert's marks have been standardised, there appears, for the same candidate, two or more scores by different experts with significant divergences (see below), the system displays an alarm for candidates for whom the divergence is detected.

The remote assessment marks are not taken into account to activate alarms.

The system will only display alarms for those candidates who have been designated as reserves or are three positions above or below the reserve candidates.

The following formula will be used to calculate whether a divergence is significant:

$$\text{If } \max_p(\text{new mark}_{c,p}) - \min_p(\text{new mark}_{c,p}) > 2$$

Review

The candidates of this restricted group with significant divergences will be discussed by the committee at its final meeting and evaluated again by each expert, who can then maintain or change their original score.

The new scores will be entered into the system again and the ranking resulting from them will be the final one for awarding fellowships by that committee.

Weighting according to expertise with the discipline assessed

The experts of each committee may indicate, via the online application that gives them access to applications, their level of expertise with the discipline of the candidacy evaluated

Each expert can choose between two possible levels of expertise:

LEVEL 1: Their knowledge corresponds, generically, with the field of the discipline evaluated and their evaluation can therefore be considered that of an expert. The remote assessment mark is always considered that of an expert.

LEVEL 2: Their knowledge does not correspond, generically, with the field of the discipline evaluated; therefore, their evaluation cannot be considered strictly that of an expert, but it is sufficient taking into account the characteristics of the call.

The final score of an application is the result of applying different levels of weighting when the levels of expertise indicated by experts evaluating the application do not coincide.

In particular,

- If, in addition to the remote assessment mark, any of the experts indicate a higher level of expertise with regard to a candidate evaluated, then an additional point of weighting is divided between the remote assessment mark and these experts with greater expertise:
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$$\text{new mark}_c = \sum_{p=1}^m \text{new mark}_{c,p} * \frac{\text{weight}_{c,p}}{\sum_{p=1}^m \text{weight}_{c,p}}$$

Example 1:

A panel is comprised of 5 experts: p_1, p_2, p_3, p_4, p_5

Experts 3 and 4 have indicated a high level of expertise with the discipline of a certain candidate evaluated, which gives a weighting value of the score for each evaluator and a total value of the sum of all weights:

$$p_1 = \text{LEVEL 2} \rightarrow \text{weight}_{c,1} = 1$$

$$p_2 = \text{LEVEL 2} \rightarrow \text{weight}_{c,2} = 1$$

$$p_3 = \text{LEVEL 1} \rightarrow \text{weight}_{c,3} = 1.33$$

$$p_4 = \text{LEVEL 1} \rightarrow \text{weight}_{c,4} = 1.33$$

$$p_5 = \text{LEVEL 2} \rightarrow \text{weight}_{c,5} = 1$$

$$p_{\text{remote assessment}} = \text{LEVEL 1} \rightarrow \text{weight}_{c,\text{remote assessment}} = 1.33$$

Therefore,

$$\sum_{p=1}^m \text{weight}_{c,p} = 7$$

So the final weighting of each expert’s score and from the remote assessment process will be:

$$\frac{\text{weight}_{c,1}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,2}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,3}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.19$$

$$\frac{\text{weight}_{c,4}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.19$$

$$\frac{\text{weight}_{c,5}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,\text{remote assessment}}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.19$$

Example 2:

A panel is comprised of 5 experts: p_1, p_2, p_3, p_4, p_5

No expert has indicated a high level of expertise with the discipline of a certain candidate evaluated, which results in a weighting value of the score for each expert and a total value of the sum of all weights:

$$p_1 = \text{LEVEL 2} \rightarrow \text{weight}_{c,1} = 1$$

$$\begin{aligned}
 p_2 &= \text{LEVEL 2} \rightarrow \text{weight}_{c,2} = 1 \\
 p_3 &= \text{LEVEL 2} \rightarrow \text{weight}_{c,3} = 1 \\
 p_4 &= \text{LEVEL 2} \rightarrow \text{weight}_{c,4} = 1 \\
 p_5 &= \text{LEVEL 2} \rightarrow \text{weight}_{c,5} = 1 \\
 p_{\text{remote assessment}} &= \text{LEVEL 1} \rightarrow \text{weight}_{c,\text{remote assessment}} = 2
 \end{aligned}$$

Therefore,

$$\sum_{p=1}^m \text{weight}_{c,p} = 7$$

So the final weighting of each expert's score and of the remote assessment process will be:

$$\frac{\text{weight}_{c,1}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,2}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,3}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,4}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,5}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.1429$$

$$\frac{\text{weight}_{c,\text{remote assessment}}}{\sum_{p=1}^m \text{weight}_{c,p}} = 0.2857$$

Rescaling the score

Proceed as follows in order to present each candidate's score on a scale from 1 to 8:

- 1) Rescale all the scores to obtain a new provisional mark (new mark_c), located between 0 and 1:

$$\text{new mark}_c = \frac{\text{new mark}_c - \min_c(\text{new mark}_c)}{\max_c(\text{new mark}_c) - \min_c(\text{new mark}_c)}$$

That is, the lowest score is subtracted from each candidate's score and divided by the value of the difference between the highest and lowest score.

- 2) All scores between the two values represented by the original score ($mark_c$) of the worst and the best scored candidate are situated within one and the same committee ($min\ mark.$ and $max\ mark,$ respectively).

To obtain these two values, calculate, for each candidate, the score resulting from the direct, non-normalised and non-weighted by expertise of the experts mean, of the scores of each expert for each candidate.

To obtain the final mark ($final\ mark_c$) for each candidate:

$$final\ mark_c = new\ mark2_c * (max\ mark - min\ mark) + min\ mark$$

where:

$max\ mark = mark_c$ highest

$min\ mark = mark_c$ lowest

In this way, the highest original score ($max\ mark$) will be assigned to the candidate with the highest final standardised, revised and weighted score, and the lowest ($min\ mark$), to the last place candidate in this same score.

Specifications for the INPhINIT programme (Committees)

In the case of the INPhINIT fellowships programme, each subcommittee will have a pre-allocated number of fellowships to be awarded. Once the scores for each subcommittee have been standardized on the basis of the standardization procedure detailed above, there will be nominated the candidates awarded with a fellowship and subsequently a single waiting list will be generated of candidates who have not obtained a fellowship from the n subcommittees under each main committee.

In the event of a resignation, the fellowship will be covered with the best rated candidate of this waiting list, according to the standardized score obtained in the subcommittee. In case of a tie among waiting list candidates, this tie will be resolved based on the standardized score obtained by the candidate in the preselection phase.

Feedback for the candidate

In order to provide adequate feedback to the candidate on the assessment of their candidacy during the face-to-face assessment process, their qualifications for each criterion will be analysed for comparison with the qualifications of the other candidates of their panel.

This feedback will not take into account the remote assessment mark, since interviewed candidates will have already obtained the corresponding feedback from the remote assessment process.

The following steps shall be followed to perform this process:

1. Standardise the mark of each criteria for each candidate for each expert according to the following procedure:

- Calculate the expert’s mean mark for each criterion ($mean_{p,k}$):

$$mean_{p,k} = \frac{\sum_{c=1}^n mark_{c,p,k}}{n}$$

Where,

p = expert P

n = number of candidates from the committee.

mark = numerical score obtained by the candidate, resulting from the scores in the various sections, by that expert.

c = candidate C

k = criterion K

- The standard deviation of that same expert for that same criterion is calculated compared to all the panel’s candidates:

$$standard\ deviation_{p,k} = \sqrt{\frac{\sum_{c=1}^n (mark_{c,p,k} - mean_{p,k})^2}{n - 1}}$$

- Finally, each expert's scores for each candidate evaluated are standardised:

$$new\ mark_{c,p} = \frac{mark_{c,p,k} - mean_{p,k}}{standard\ deviation_{p,k}}$$

2. The various experts’ marks for each criterion are averaged to calculate the corresponding mark for each candidate:

$$new\ mark_{c,k} = \sum_{p=1}^m new\ mark_{c,p,k} * \frac{1}{m}$$

3. When the marks for each candidate for each criterion are available, calculate the quartiles (percentages of 25%, 50% and 75%) of each criterion, which are named Q_1, Q_2, Q_3

respectively. The quartiles are those numbers that having an orderly list are situated in the 25%, 50% and 75% positions respectively of that list.

4. Finally, a number is assigned to each candidate for each criterion indicating in which segment they are found:
 - If $new\ mark_{c,k} \leq Q_1$: *segment* $_{c,k} = 4$,
 - If $Q_1 \leq new\ mark_{c,k} \leq Q_2$: *segment* $_{c,k} = 3$,
 - If $Q_2 \leq new\ mark_{c,k} \leq Q_3$: *segment* $_{c,k} = 2$,
 - If $Q_3 \leq new\ mark_{c,k}$: *segment* $_{c,k} = 1$

Note: The algorithms, procedures and formulas used in this document have been prepared by **Miquel Picallo**, intern of "la Caixa" (North America, 2011).