

## **Scientific Research (B/C) (Application Section “General”) and Early-Career Scientists Assessment Criteria for Document Review**

Grants-in-Aid for Scientific Research (KAKENHI) aim to dramatically develop all academic research, from basics to applications, throughout all research fields. In the review for allotment of research funds, each reviewer is required to make appropriate and fair judgment as to whether the submitted research proposals could contribute greatly to this end.

The Basic Section will be applied for the review. Note that for Grant-in-Aid for Scientific Research (B), any Basic Section with a notably small number of applications will be reviewed jointly with other Basic Sections.

Instead of a panel review, the Two-Stage Document Review method will be implemented where the same group of reviewers will conduct document review in two stages to determine the adoption of research proposals.

In the first stage review, each research proposal will first be assigned an absolute score for the individual rating elements listed below to assess the content, plan, etc. of the research. Then a relative overall score on a scale of 1 to 4 will be assigned.

Note that, in the absolute evaluation for each rating element, if you assign a score of “2—Marginal” or “1—Poor,” you will be asked to select which item of the rating element was considered “Marginal” or “Poor,” and to give the reason for such judgment. The items selected here will be disclosed to unsuccessful applicants who have made prior request for disclosure of the results of the first stage review.

In the second stage review, the same group of reviewers will assess the research proposals that qualified for the second stage review based on the results of the first stage document review, and assign new scores for the second stage. Here, you should check the review comments (for the first stage) etc. made by all the reviewers assessing the same research proposal, and assign a score based on your own insight.

The adoption of research proposals and allocation of research funds will be determined based on these scores, etc.

In conducting the review, you do not necessarily have to give high scores to research proposals that marked high scores in all of the individual elements. You are asked to conduct appropriate assessments so as to discover significant research projects over a wide range and enable the progress of scientific research while giving consideration to the diversity of research such as characteristics of the fields.

Note that you must not conduct reviews of research proposals submitted by any research team consisting of researchers whom you have vested interests.

## i Assessment Criteria

### [Rating Elements]

#### (1) Academic Importance of the Research Proposal

- Is the research proposal an important research project that should be promoted from a scientific perspective?
- Is the “key research question or issue” comprising the core of the research project clearly stated? Is it original and creative?
- Does the research proposal clearly show the circumstances leading to this research proposal, global research trends, and the positioning of this research within the relevant domain or field?
- By conducting the proposed research project, could we expect positive effects on broader fields, science and technology, the society or other areas?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Marginal
1	Poor

#### (2) Validity of the Research Method

- Is the research method, etc. specific and appropriate to achieve the research objective? Also, are the research expenditures consistent with the research plan?
- Is the state of preparation appropriate to achieve the research objective?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Marginal
1	Poor

#### (3) Appropriateness of Ability and Research Environment to Conduct Research

- Judging from the research activities, etc. conducted over the years, does the applicant possess sufficient ability to carry out the research plan?
- Has the applicant secured a research environment that he/she needs to conduct the research plan including research facilities, equipment, and research materials?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Marginal
1	Poor

## **[Overall Scores and Review Comments in the First Stage Review]**

### **[Overall Scores in the First Stage Review]**

To determine the adoption of each research proposal, make a comprehensive judgment focusing on the rating elements (1) through (3) above, and assign an overall score on a scale of 1 to 4 in accordance with the scoring distribution shown in the right column in the table below. (This may not be the case if you are asked to review a small number of research proposals.)

If you have “vested interests” in a research proposal, enter the reason in the “Reason for Vested Interests” column.

Also note that “The Status of Application and Acquisition of Research Grants” and “Issues Relevant to Human Rights Protection and Legal Compliance” columns in the research proposal document are not to be considered for the overall score given in the document review. As such, you should assign the overall score based on each of the other columns, etc. Please check the section iii. Points to be Noted on how to handle “The Status of Application and Acquisition of Research Grants” and “Issues Relevant to Human Rights Protection and Legal Compliance” columns in the review process.

Scoring Classification	Rough Indication of Scoring Distribution
4	10%
3	20%
2	40%
1	30%
Cannot evaluate this proposal due to vested interests	-

Note: In making your assessment, use the following rough indication to assign the score.

4—Outstanding; 3—Excellent; 2—Satisfactory; 1—Marginal

### **[Review Comments in the First Stage Review]**

In the first stage review, you must give your review comments in the “Review Comments” column for every research proposal, focusing on the strengths and weaknesses of each research proposal. Note that you will not be required to provide review comments in the second stage review.

The review comments will be disclosed to other reviewers to help each reviewer gain better understanding on the research proposals when assigning new overall scores in the second stage review.

### **[Overall Scores in the Second Stage Review]**

To determine the adoption of each research proposal that qualified for the second stage review based on the results of the first stage document review, make a comprehensive judgment focusing on the rating elements (1) through (3) above. Check also the review comments, etc. provided by all reviewers who are reviewing the same research proposal. Then assign an overall score on a scale of 1 to 4 in accordance with the scoring distribution shown separately as indicated in the right column in the table below.

Note that research proposals that were ranked close to the planned adoption threshold as a result of the first stage document review, and research proposals that were assigned extremely low scores by certain reviewers will also be considered when determining the eligibility for the second stage review.

Also note that “The Status of Application and Acquisition of Research Grants” and “Issues Relevant to Human Rights Protection and Legal Compliance” columns in the research proposal document are not to be considered for the overall score given in the review. As such, you should assign the overall score based on each of the other columns, etc. Please check the section iii. Points to be Noted on how to handle “The Status of Application and Acquisition of Research Grants” and “Issues Relevant to Human Rights Protection and Legal Compliance” columns in the review process.

Scoring Classification	Assessment Criteria	Rough Indication of Scoring Distribution
A	Among the research proposals qualified for the second stage review, this proposal should be adopted with highest priority	To be adjusted according to the number of proposals to be adopted
B	Among the research proposals qualified for the second stage review, this proposal should be adopted with priority	
C	Among the research proposals qualified for the second stage review, this proposal is worth considering for adoption	
D	None of the above (A through C)	
-	Cannot evaluate this proposal due to vested interests	-

## ii Other Evaluation Items

### Validity of Research Expenditures

In order to ensure effective and efficient allocation of KAKENHI funding, please consider the criteria listed below with respect to the validity and necessity of research expenditure. If you find a flaw in the content of the research expenditure and think that the sufficiency rate should be reduced, assign a “x” to the research proposal. The sufficiency rates for research proposals that were marked “x” by more than one reviewer will be set below the average sufficiency rate.

- Is the content of research expenditure reasonable and can we expect that the research expenditure will be used effectively?
- Are items genuinely necessary for the implementation of the research plan properly budgeted, such as costs for purchasing equipment?
- If any of the expenditure categories (equipment costs, travel expenses, or personnel cost/honoraria) exceeds 90% of the total expenditure, can we expect that the research expenditure will be used effectively for the implementation of the research plan?

### **iii Points to be Noted**

#### **(1) Handling of “The Status of Application and Acquisition of Research Grants” column**

The status of application and acquisition of other research projects is used as a reference to determine “whether this research proposal can be carried out sufficiently without creating unreasonable duplication and/or excessive concentration in the allocation of research funds.” Therefore, do not consider this information in the overall scores to be assigned in the review.

In making judgments on unreasonable duplication etc. in the grant allocation, you should follow the procedures outlined below.

##### **[First Stage Review]**

In the first stage review, if you find that a research proposal obviously “falls under unreasonable duplication and/or excessive concentration in the grant allocation and cannot be carried out sufficiently,” please state the reason in the “Reason leading to the judgment” column.

Note that this column may be left blank in case “This item is not applicable” or if you find “No particular problem (including cases where you cannot make a judgment).”

##### **[Second Stage Review]**

In the second stage review, you will be asked to examine research proposals that, of the research proposals qualified for the second stage review or ranked higher, were found by more than one reviewer in the first stage review to “fall under unreasonable duplication and/or excessive concentration in the grant allocation and cannot be carried out sufficiently” and commented on the reason in the “Reason leading to the judgment” column. Please determine once again “whether the research proposal can be carried out sufficiently without creating unreasonable duplication and/or excessive concentration in the grant allocation.” Based on the results, check the “I find no particular problem (including cases where you cannot make a judgment)” column if you determine that the research proposal can be carried out sufficiently without creating unreasonable duplication and/or excessive concentration in the grant allocation, or if you cannot make a judgment. If you see an apparent problem, assign a “x” mark.

Note that any research proposal that is assigned “x” by all reviewers will not be adopted regardless of evaluation of its academic value.

#### **(2) Handling of “Issues Relevant to Human Rights Protection and Legal Compliance” column**

Research proposals that require the protection of human rights and legal compliances in implementing the research plan must be conducted after following necessary procedures and taking necessary measures such as obtaining the approval of the ethics committee, etc. inside and outside the research institution based on relevant laws and regulations. For this reason, you do not need to consider them as evaluation items for the review.

If you find it necessary to inform the research institution in advance, for example, of any inadequacy in the prescribed procedures or measures, etc. in implementing the research, please describe the specific reasons for such judgment in the “Reason leading to the judgment” column. If the research proposal is adopted, JSPS will notify the applicant’s affiliated research institution to carry out such prescribed procedures or measures, etc. Even if the research proposal is not adopted, JSPS will disclose in the review results that there was inadequacy in the prescribed procedures or measures, etc.

Note also that the “Reason leading to the judgment” column may be left blank in case “This item is not applicable” or if you find “No particular problem (including cases that cannot be judged).”