A Guide to Applying for JSPS Grants-in-Aid

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The aim of this conference workshop is to guide teachers through the complex application process and show how to write a research proposal to win a grant-in-aid for scientific research. This workshop guides participants through the documentation for each stage of the process, provides examples of successfully completed forms, and highlights the numerous pitfalls that doom applications from the outset. This paper describes the steps, information and tips useful for those applying for JSPS grants-in-aid.

本ワークショップの目的は、日本学術振興会科学研究費補助金獲得に関して、複雑な申請の手順を説明し、申請書の書き方を示すことであった。ワークショップでは、段階を追いながら、申請の手順を文書化して提示し、完成した申請書の例を検討し、最初から陥りやすい数多くの失敗点を浮き彫りにした。本論文においては,ワークショップの参加者と共有した申請に関する手順、情報や秘訣を説明する。

This paper reports on the Workshop titled *A guide to applying for JSPS grants-in-aid*, presented at the JALT2011 Conference in Tokyo.

As universities in Japan feel the cold, stiff winds of economic recession and funding for education and research has become even more difficult to come by, administrators are urging (and in some cases requiring) all teachers to apply for whatever financial grants are available to them. In particular, applying for the annual grants awarded by the Japan Society for the Promotion of Science (JSPS), more commonly known as the Kakenhi Program, has become de rigueur for both Japanese and foreign teachers alike.

For applicants, although the basic application documentation is now available in English, important reference materials and the website for uploading applications are not. In addition, understanding all the requirements and complying completely with all the rules is quite daunting. Nevertheless, it is becoming increasingly necessary for foreign teachers to learn how to navigate and apply for such research funding, and to be successful.

This paper outlines the basic requirements for each section of the application, presents sample pages from a 2011 submitted application, and a summary of advice and suggestions collected from interviews with experienced judges and fellow researchers (both referred to hereinafter as *previous recipients*) who currently receive a JSPS grant-in-aid, or who have received the grant in the past. Based on the interviews as a whole, it appears that research-

ers, and judges, are by and large unable to provide definitive reasons for the success of a specific application beyond that of an applicant's adherence to the scripted rules, and instead offer opinions based on their own accrued JSPS grant-in-aid experience, knowledge, and, in the case of judges, comparative analyses of applications received. In spite of the lack of a prescriptive formula for success, the advice from these successful experiences offers applicants valuable insight into the evaluation process, and therefore into the approach for completing the application itself. The advice and recommendations referenced throughout this paper refer to the combined results of these interviews in an effort to present a summary of the wide range of information collected.

Kakenhi Program

The Kakenhi Program provides researchers with access to funding not available through other research budgets or means to support research which JSPS deems to be of particular value to Japan. For the researchers, it is important that they understand this funding is from the Japanese people's tax money, and any Grant-in-Aid funds received must be used according to the JSPS rules and regulations. For applicants, funds are available under the following general categories: Scientific Research (A, B and C), Challenging Exploratory Research, and Grant-in-Aid for Young Scientists (A and B). For foreign language teachers, applications are made under Scientific Research C.

Before You Start

In preparation of the application procedure, the previous recipients interviewed emphasized some important points for consideration. Before anything else, they clearly stated that a good topic was vital to a successful application: however, no matter how eye-catching the topic, if each of the sections is not completed correctly and with the required information, the application has no chance of being accepted. Furthermore, applicants are expected to exhibit careful and detailed consideration of their plans for the entirety of their research process, so applicants should ensure that each of the statements included in their application is accurate, truthful and complete.

As space is limited strictly to the sections and pages provided, it is important that the content for each section be detailed with this in mind. According to previous recipients, judges in particular, in writing the application, the recommended font size is 11-point font, and the format presented so that it is easy for the judge(s) to read. Roughly half of the previous recipients interviewed cited the importance of including tables and graphs to better illustrate the contents of the research in a quick and understandable manner, while others claimed that written descriptions were more highly favoured by judges, with the judges interviewed seemingly split on the matter. What this advice illustrates is that a variety of formats appear to be acceptable, and that success may be simply hit-or-miss with the judge that evaluates your particular choice of application style.

Many universities, to assist their staff in winning future research funding, stage grant lectures (in Japanese) where staff members and current grant recipients present explanations of the application procedure as well as some tips for prospective applicants. Handouts and flow charts are also sometimes provided to give aspiring applicants the most current information upon which to base their new applications. In comparing information from several grant lectures, as well as from interviews with previous recipients, it is significant to note that advice and tips varied widely; sometimes, the information given was even contradictory. This illustrates not only the great latitude that exists within the application process but also the difficulties in compiling a successful application. In order to understand the requirements of each part of the application, previous recipients

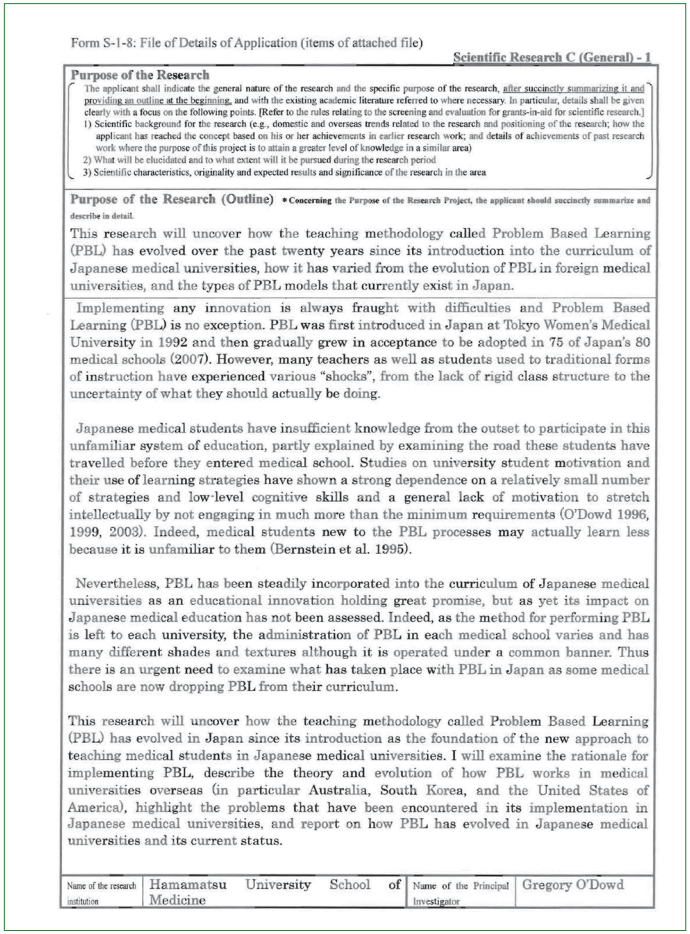
and other applicants recommend it is highly beneficial to review similar applications that have already been successful, such as can be accessed on websites such as <http://seika.nii.ac.jp/>. This website offers a searchable database of prior successful applications so applicants can gain an understanding of how to complete their documentation. With this preparation and advice applicants are better positioned to begin the application process.

Application Forms

Pages 1 and 2 of the application (Figures 1 & 2) require applicant(s) to describe the general nature and specific purpose of the research. At the top of page 1, the documentation requires a succinct summary of the nature and purpose of the research. According to previous recipients, this should be both eye-catching and engaging, otherwise judges may read no further. The following advice is also offered:

- clearly state the aim of your research;
- avoid any unnecessary details or understating the purpose;
- quote applicable research.

Additionally, it is also recommended to accurately and consistently follow a recognized format for referencing, and ensure that you have crossed all of your "t"s and dotted all of your "i"s.



Form S-1-8: File of Details of Application (items of attached file)

Scientific Research C (General) - 1

Purpose of the Research

The applicant shall indicate the general nature of the research and the specific purpose of the research, after succinctly summarizing it and providing an outline at the beginning, and with the existing academic literature referred to where necessary. In particular, details shall be given clearly with a focus on the following points. [Refer to the rules relating to the screening and evaluation for grants-in-aid for scientific research.]

1) Scientific background for the research (e.g., domestic and overseas trends related to the research and positioning of the research; how the applicant has reached the concept based on his or her achievements in earlier research work; and details of achievements of past research work where the purpose of this project is to attain a greater level of knowledge in a similar area)
2) What will be elucidated and to what extent will it be pursued during the research period
3) Scientific characteristics, originality and expected results and significance of the research in the area

Purpose of the Research (Outline) • Concerning the Purpose of the Research Project, the applicant should succinctly summarize and describe in detail.

This research will uncover how the teaching methodology called Problem Based Learning (PBL) has evolved over the past twenty years since its introduction into the curriculum of Japanese medical universities, how it has varied from the evolution of PBL in foreign medical universities, and the types of PBL models that currently exist in Japan.

Implementing any innovation is always fraught with difficulties and Problem Based Learning (PBL) is no exception. PBL was first introduced in Japan at Tokyo Women's Medical University in 1992 and then gradually grew in acceptance to be adopted in 75 of Japan's 80 medical schools (2007). However, many teachers as well as students used to traditional forms of instruction have experienced various "shocks", from the lack of rigid class structure to the uncertainty of what they should actually be doing.

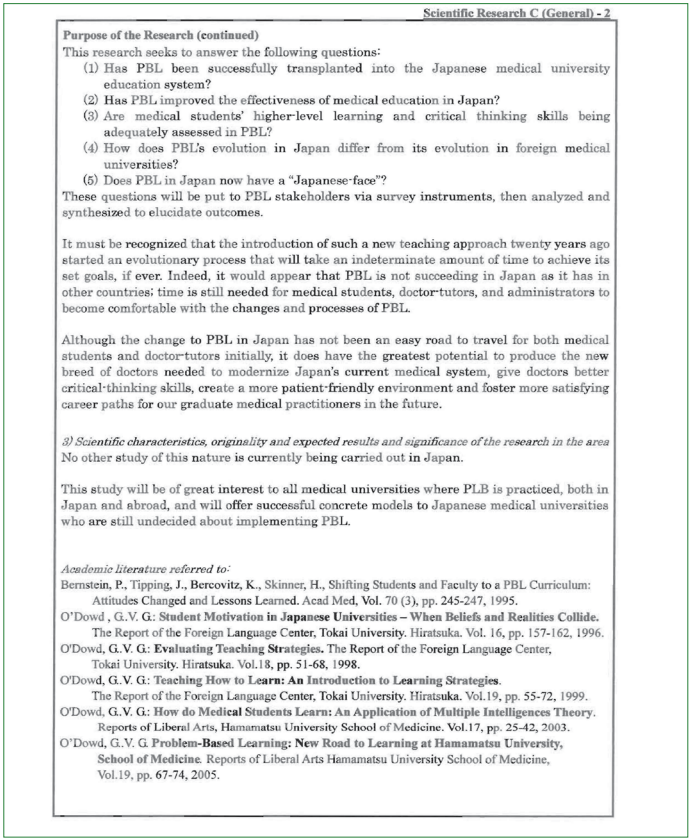
Japanese medical students have insufficient knowledge from the outset to participate in this unfamiliar system of education, partly explained by examining the road these students have travelled before they entered medical school. Studies on university student motivation and their use of learning strategies have shown a strong dependence on a relatively small number of strategies and low-level cognitive skills and a general lack of motivation to stretch intellectually by not engaging in much more than the minimum requirements (O'Dowd 1996, 1999, 2003). Indeed, medical students new to the PBL processes may actually learn less because it is unfamiliar to them (Bernstein et al. 1995).

Nevertheless, PBL has been steadily incorporated into the curriculum of Japanese medical universities as an educational innovation holding great promise, but as yet its impact on Japanese medical education has not been assessed. Indeed, as the method for performing PBL is left to each university, the administration of PBL in each medical school varies and has many different shades and textures although it is operated under a common banner. Thus there is an urgent need to examine what has taken place with PBL in Japan as some medical schools are now dropping PBL from their curriculum.

This research will uncover how the teaching methodology called Problem Based Learning (PBL) has evolved in Japan since its introduction as the foundation of the new approach to teaching medical students in Japanese medical universities. I will examine the rationale for implementing PBL, describe the theory and evolution of how PBL works in medical universities overseas (in particular Australia, South Korea, and the United States of America), highlight the problems that have been encountered in its implementation in Japanese medical universities, and report on how PBL has evolved in Japanese medical universities and its current status.

Name of the research institution	Hamamatsu University School of Medicine	Name of the Principal Investigator	Gregory O'Dowd

Figure 1. Page 1: Nature and Purpose of Research



Scientific Research C (General) - 2

Purpose of the Research (continued)

This research seeks to answer the following questions:

(1) Has PBL been successfully transplanted into the Japanese medical university education system?
(2) Has PBL improved the effectiveness of medical education in Japan?
(3) Are medical students' higher-level learning and critical thinking skills being adequately assessed in PBL?
(4) How does PBL's evolution in Japan differ from its evolution in foreign medical universities?
(5) Does PBL in Japan now have a "Japanese-face"?

These questions will be put to PBL stakeholders via survey instruments, then analyzed and synthesized to elucidate outcomes.

It must be recognized that the introduction of such a new teaching approach twenty years ago started an evolutionary process that will take an indeterminate amount of time to achieve its set goals, if ever. Indeed, it would appear that PBL is not succeeding in Japan as it has in other countries; time is still needed for medical students, doctor-tutors, and administrators to become comfortable with the changes and processes of PBL.

Although the change to PBL in Japan has not been an easy road to travel for both medical students and doctor-tutors initially, it does have the greatest potential to produce the new breed of doctors needed to modernize Japan's current medical system, give doctors better critical-thinking skills, create a more patient-friendly environment and foster more satisfying career paths for our graduate medical practitioners in the future.

3) Scientific characteristics, originality and expected results and significance of the research in the area

No other study of this nature is currently being carried out in Japan.

This study will be of great interest to all medical universities where PLB is practiced, both in Japan and abroad, and will offer successful concrete models to Japanese medical universities who are still undecided about implementing PBL.

Academic literature referred to:

Bernstein, P., Tipping, J., Bercovitz, K., Skinner, H., Shifting Students and Faculty to a PBL Curriculum: Attitudes Changed and Lessons Learned. Acad Med, Vol. 70 (3), pp. 245-247, 1995.

O'Dowd , G.V. G: **Student Motivation in Japanese Universities – When Beliefs and Realities Collide.** The Report of the Foreign Language Center, Tokai University. Hiratsuka. Vol. 16, pp. 157-162, 1996.

O'Dowd, G.V. G: **Evaluating Teaching Strategies.** The Report of the Foreign Language Center, Tokai University. Hiratsuka. Vol.18, pp. 51-68, 1998.

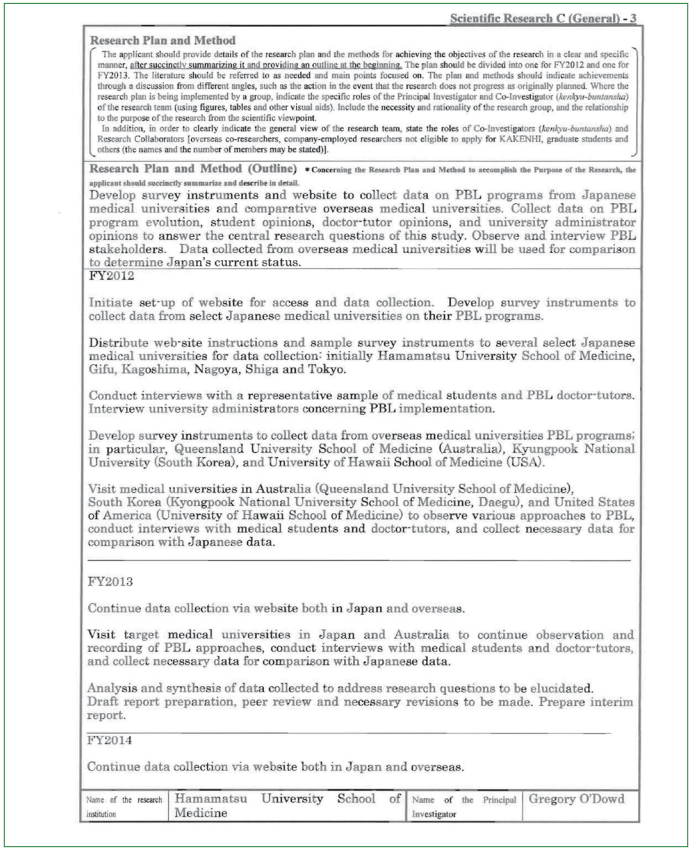
O'Dowd, G.V. G: **Teaching How to Learn: An Introduction to Learning Strategies.** The Report of the Foreign Language Center, Tokai University. Hiratsuka. Vol.19, pp. 55-72, 1999.

O'Dowd, G.V. G: **How do Medical Students Learn: An Application of Multiple Intelligences Theory.** Reports of Liberal Arts, Hamamatsu University School of Medicine. Vol.17, pp. 25-42, 2003.

O'Dowd, G.V. G. **Problem-Based Learning: New Road to Learning at Hamamatsu University, School of Medicine.** Reports of Liberal Arts Hamamatsu University School of Medicine, Vol.19, pp. 67-74, 2005.

Figure 2. Page 2: Purpose of the Research (Continued)

Pages 3 and 4 of the application (Figures 3 & 4) are entitled *Research Plan and Method*. This section of the application requires the applicant(s) to provide details of the research plan and the methods for achieving the previously stated objectives of the research in a clear and specific manner. Applicants should present a clear and succinct summary at the beginning, and divide their planned activities into each financial year.



Scientific Research C (General) - 3

Research Plan and Method

The applicant should provide details of the research plan and the methods for achieving the objectives of the research in a clear and specific manner, after succinctly summarizing it and providing an outline at the beginning. The plan should be divided into one for FY2012 and one for FY2013. The literature should be referred to as needed and main points focused on. The plan and methods should indicate achievements through a discussion from different angles, such as the action in the event that the research does not progress as originally planned. Where the research plan is being implemented by a group, indicate the specific roles of the Principal Investigator and Co-Investigator (*kenkyu-buntansha*) of the research team (using figures, tables and other visual aids). Include the necessity and rationality of the research group, and the relationship to the purpose of the research from the scientific viewpoint.

In addition, in order to clearly indicate the general view of the research team, state the roles of Co-Investigators (*kenkyu-buntansha*) and Research Collaborators [overseas co-researchers, company-employed researchers not eligible to apply for KAKENHI, graduate students and others (the names and the number of members may be stated)].

Research Plan and Method (Outline) • Concerning the Research Plan and Method to accomplish the Purpose of the Research, the applicant should succinctly summarize and describe in detail.

Develop survey instruments and website to collect data on PBL programs from Japanese medical universities and comparative overseas medical universities. Collect data on PBL program evolution, student opinions, doctor-tutor opinions, and university administrator opinions to answer the central research questions of this study. Observe and interview PBL stakeholders. Data collected from overseas medical universities will be used for comparison to determine Japan's current status.

FY2012

Initiate set-up of website for access and data collection. Develop survey instruments to collect data from select Japanese medical universities on their PBL programs.

Distribute web-site instructions and sample survey instruments to several select Japanese medical universities for data collection: initially Hamamatsu University School of Medicine, Gifu, Kagoshima, Nagoya, Shiga and Tokyo.

Conduct interviews with a representative sample of medical students and PBL doctor-tutors. Interview university administrators concerning PBL implementation.

Develop survey instruments to collect data from overseas medical universities PBL programs; in particular, Queensland University School of Medicine (Australia), Kyungpook National University (South Korea), and University of Hawaii School of Medicine (USA).

Visit medical universities in Australia (Queensland University School of Medicine), South Korea (Kyongpook National University School of Medicine, Daegu), and United States of America (University of Hawaii School of Medicine) to observe various approaches to PBL, conduct interviews with medical students and doctor-tutors, and collect necessary data for comparison with Japanese data.

FY2013

Continue data collection via website both in Japan and overseas.

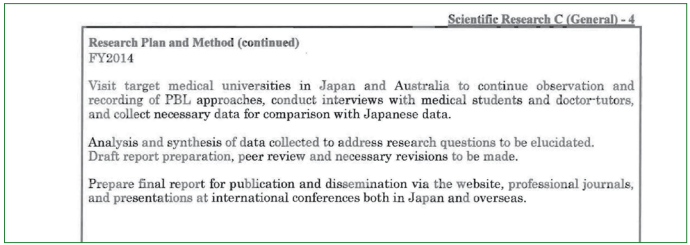
Visit target medical universities in Japan and Australia to continue observation and recording of PBL approaches, conduct interviews with medical students and doctor-tutors, and collect necessary data for comparison with Japanese data.

Analysis and synthesis of data collected to address research questions to be elucidated. Draft report preparation, peer review and necessary revisions to be made. Prepare interim report.

FY2014

Continue data collection via website both in Japan and overseas.

Name of the research institution	Hamamatsu University School of Medicine	Name of the Principal Investigator	Gregory O'Dowd



Scientific Research C (General) - 4

Research Plan and Method (continued)
FY2014

Visit target medical universities in Japan and Australia to continue observation and recording of PBL approaches, conduct interviews with medical students and doctor-tutors, and collect necessary data for comparison with Japanese data.

Analysis and synthesis of data collected to address research questions to be elucidated. Draft report preparation, peer review and necessary revisions to be made.

Prepare final report for publication and dissemination via the website, professional journals, and presentations at international conferences both in Japan and overseas.

Figure 3. Page 3: Research Plan and Method

Figure 4: Page 4: Research Plan and Method (Continued)

For these two pages the previous recipients also recommend that attention be given to the following three points:

1. Paint a clear picture of your plan. With the emphasis on *clear*, judges stated that they are looking to clearly understand what the applicants want to do and exactly how they plan to do it. If the plan is clear but the method is not, or vice versa, this section can easily doom the application.
2. Include a plan B. That is, if the research should not go as planned or as scheduled (e.g., problems with personnel, facilities, resources, etc.), in what direction will it proceed. If unforeseen circumstances should arise, such as a Co-investigator being transferred away or an integral facility closing (both actual examples provided during interviews), the judges would like to know if an alternative plan exists for seeing the research through to the end.
3. Clearly explain the specific role(s) and responsibilities of any Co-investigators. All parties named in the application are expected to contribute to the research plan (and share the budget), so the roles and responsibilities of each need to be clearly detailed.

The example above (Figures 3 and 4) shows the separation of the research plan into FY2012-FY2014, the three years the applicant is applying for. In each of the years, the applicant outlines specific research activities to be undertaken. For FY2012, the place of activity, participants in, and methods for research are given in a clear and concisely written account as the judges are interested in knowing the particulars concerned with how the applicant plans to achieve the goal(s) set out on pages 1 and 2.

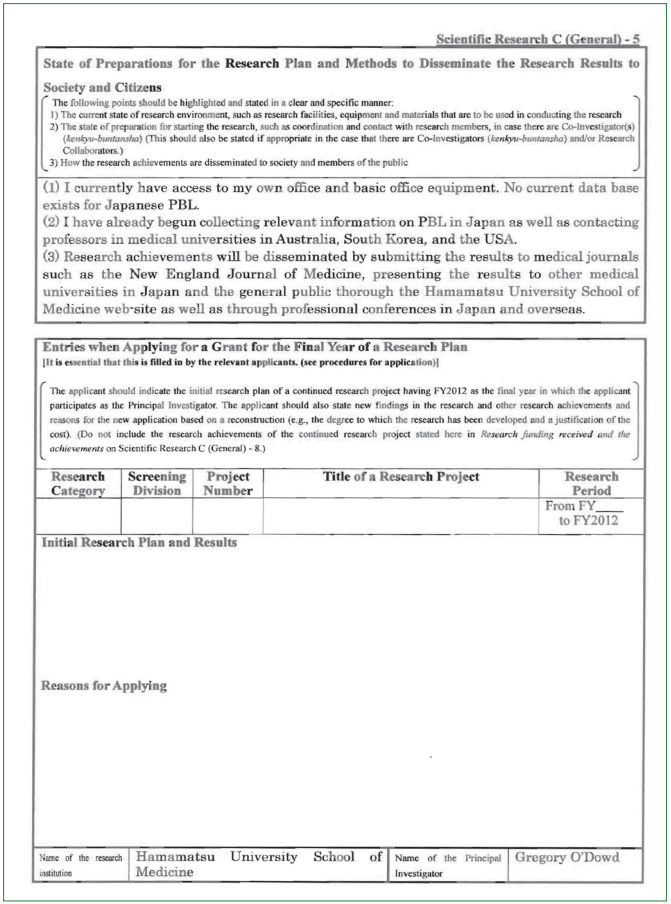
The required information for completing page 5 (Figure 5), is evident in the title of this section, *State of Preparation for the Research Plan and Methods to Disseminate the Research Results to Society and Citizens*. The example included in Figure 5 illustrates both the need to complete only necessary sections and the previous recipients' advice to clearly format information where possible. This applicant completed only the top section of this page as he was not at the time of application receiving a grant, and he also numbered each response in order to clearly outline his consideration for each of the three requirements listed at the top.

For this section, the previous recipients offer three points of advice:

1. Detail whether the necessary facilities and equipment are readily available or need to be purchased / installed: With consideration to the applicant's plan and proposed methodology, it is important to give due consideration to the facilities and/or equipment needed for the research as, according to previous recipients, the judges often find discrepancies in this section between applicant wants and research needs, something that alerts them to the level of consideration the applicant has given to their research.
2. For Co-investigators, explain relationships and plans for coordination for and during research: As each Co-investigator is obviously vital to the success of the research (or the applicant would have applied for the grant on his/her own), it is important to explain the relationship of each

to the research and how the multiple researchers will go about coordinating their plan and methodologies. If, for example, a Co-investigator is based at the opposite end of the country, the judges will be interested in knowing how long-distance coordination will be carried out to facilitate the flow of the research.

3. Detail plan(s) to share results (academic presentation, paper, speech, public announcement, etc.): As the results only hold value to the extent that they can be shared, judges interviewed noted the need to know how the applicant's results were planned to be shared with others in the field, as the government is justifiably expecting some return on the public funding invested. This return is expected in the form of public dissemination. In this section of the application, the applicant should give careful thought and detail to how and where they plan to share their results.



Scientific Research C (General) - 5

State of Preparations for the Research Plan and Methods to Disseminate the Research Results to Society and Citizens

The following points should be highlighted and stated in a clear and specific manner:
1) The current state of research environment, such as research facilities, equipment and materials that are to be used in conducting the research
2) The state of preparation for starting the research, such as coordination and contact with research members, in case there are Co-Investigator(s) (*kenkyu-buntansha*) (This should also be stated if appropriate in the case that there are Co-Investigators (*kenkyu-buntansha*) and/or Research Collaborators.)
3) How the research achievements are disseminated to society and members of the public

(1) I currently have access to my own office and basic office equipment. No current data base exists for Japanese PBL.
(2) I have already begun collecting relevant information on PBL in Japan as well as contacting professors in medical universities in Australia, South Korea, and the USA.
(3) Research achievements will be disseminated by submitting the results to medical journals such as the New England Journal of Medicine, presenting the results to other medical universities in Japan and the general public thorough the Hamamatsu University School of Medicine web-site as well as through professional conferences in Japan and overseas.

Entries when Applying for a Grant for the Final Year of a Research Plan
[It is essential that this is filled in by the relevant applicants. (see procedures for application)]

The applicant should indicate the initial research plan of a continued research project having FY2012 as the final year in which the applicant participates as the Principal Investigator. The applicant should also state new findings in the research and other research achievements and reasons for the new application based on a reconstruction (e.g., the degree to which the research has been developed and a justification of the cost). (Do not include the research achievements of the continued research project stated here in *Research funding received and the achievements* on Scientific Research C (General) - 8.)

Research Category	Screening Division	Project Number	Title of a Research Project	Research Period
				From FY____ to FY2012

Initial Research Plan and Results

Reasons for Applying

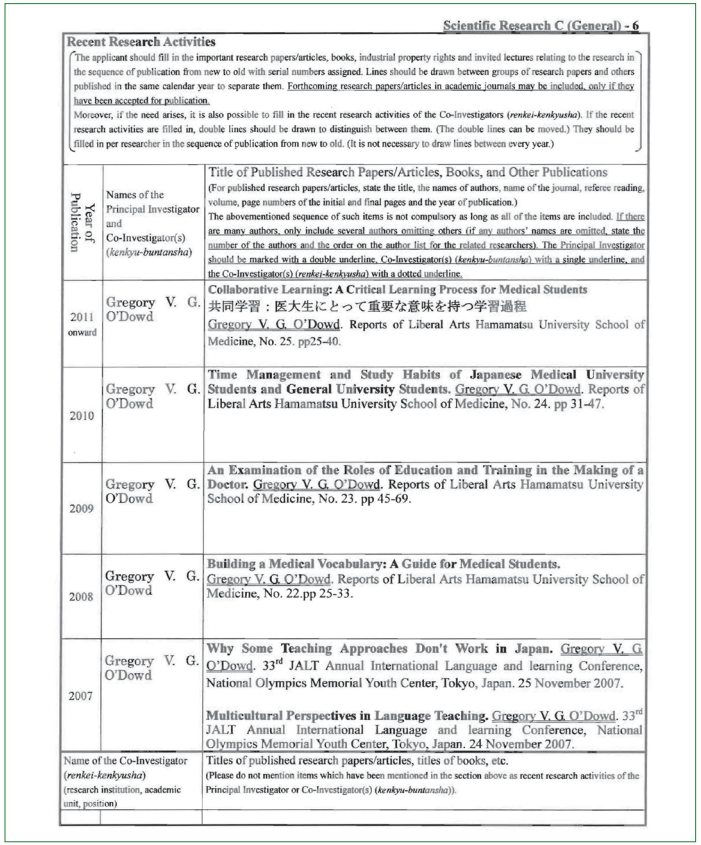
Name of the research institution	Hamamatsu University School of Medicine	Name of the Principal Investigator	Gregory O'Dowd

Figure 5. State of Preparation for the Research Plan and Methods to Disseminate the Research Results to Society and Citizens

Pages 6 and 7 (Figure 6, Page 6 only) are concerned with *Recent Research Activities* and are formatted so that the Principal Researcher's research activities (publications etc.) for the last five years may be examined. This part is followed by space to include documentation of the research activities of any Co-investigators. Figure 6 includes an example of the required formatting not being followed. For this section, two key points are noted by previous recipients:

1. Follow the instructions precisely, even if it seems superfluous (e.g., Principal Investigator double underline; Co-investigator(s) – *kenkyu-buntansha* – single underline; Co-investigator(s) – *renkei-kenkyusha* – dotted underline).
2. Indicate whether publications were refereed or not. Previous recipients emphasized the difference in weighting judges give between a paper that was refereed and one that was not, with refereed papers evaluated more highly.

The devil is in the details; many schools have some system for checking applications before final submission online to identify such common mistakes and omissions.



Scientific Research C (General) - 6

Recent Research Activities

The applicant should fill in the important research papers/articles, books, industrial property rights and invited lectures relating to the research in the sequence of publication from new to old with serial numbers assigned. Lines should be drawn between groups of research papers and others published in the same calendar year to separate them. Forthcoming research papers/articles in academic journals may be included, only if they have been accepted for publication.
Moreover, if the need arises, it is also possible to fill in the recent research activities of the Co-investigators (*renkei-kenkyusha*). If the recent research activities are filled in, double lines should be drawn to distinguish between them. (The double lines can be moved.) They should be filled in per researcher in the sequence of publication from new to old. (It is not necessary to draw lines between every year.)

Year of Publication	Names of the Principal Investigator and Co-Investigator(s) (*kenkyu-buntansha*)	Title of Published Research Papers/Articles, Books, and Other Publications (For published research papers/articles, state the title, the names of authors, name of the journal, referee reading, volume, page numbers of the initial and final pages and the year of publication.) The abovementioned sequence of such items is not compulsory as long as all of the items are included. If there are many authors, only include several authors omitting others (if any authors' names are omitted, state the number of the authors and the order on the author list for the related researchers). The Principal Investigator should be marked with a double underline, Co-Investigator(s) (*kenkyu-buntansha*) with a single underline, and the Co-Investigator(s) (*renkei-kenkyusha*) with a dotted underline.
2011 onward	Gregory V. G. O'Dowd	**Collaborative Learning: A Critical Learning Process for Medical Students** 共同学習：医大生にとって重要な意味を持つ学習過程 Gregory V. G. O'Dowd. Reports of Liberal Arts Hamamatsu University School of Medicine, No. 25. pp25-40.
2010	Gregory V. G. O'Dowd	**Time Management and Study Habits of Japanese Medical University Students and General University Students.** Gregory V. G. O'Dowd. Reports of Liberal Arts Hamamatsu University School of Medicine, No. 24. pp 31-47.
2009	Gregory V. G. O'Dowd	**An Examination of the Roles of Education and Training in the Making of a Doctor.** Gregory V. G. O'Dowd. Reports of Liberal Arts Hamamatsu University School of Medicine, No. 23. pp 45-69.
2008	Gregory V. G. O'Dowd	**Building a Medical Vocabulary: A Guide for Medical Students.** Gregory V. G. O'Dowd. Reports of Liberal Arts Hamamatsu University School of Medicine, No. 22.pp 25-33.
2007	Gregory V. G. O'Dowd	**Why Some Teaching Approaches Don't Work in Japan.** Gregory V. G O'Dowd. 33rd JALT Annual International Language and learning Conference, National Olympics Memorial Youth Center, Tokyo, Japan. 25 November 2007. **Multicultural Perspectives in Language Teaching.** Gregory V. G. O'Dowd. 33rd JALT Annual International Language and learning Conference, National Olympics Memorial Youth Center, Tokyo, Japan. 24 November 2007.
Name of the Co-Investigator (*renkei-kenkyusha*) (research institution, academic unit, position)		Titles of published research papers/articles, titles of books, etc. (Please do not mention items which have been mentioned in the section above as recent research activities of the Principal Investigator or Co-Investigator(s) (*kenkyu-buntansha*)).

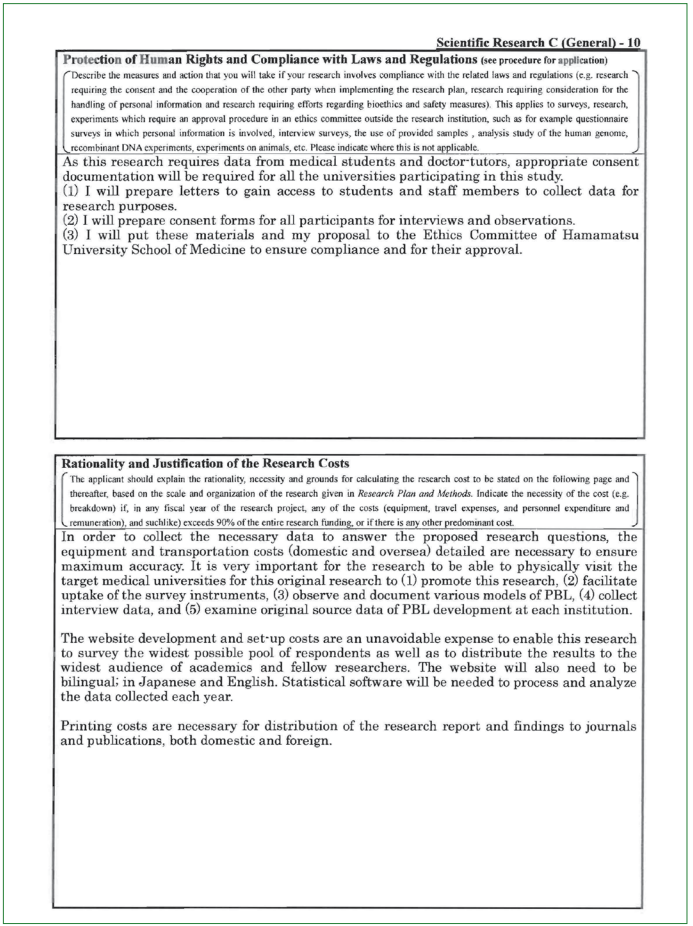
Figure 6. Recent Research Activities

Applicants who have already received previous research grant monies must complete page 8 (*Research Funding Received and Achievements*) and page 9 (*Connection between the Research*

Plan and the Research Project which received a Research Progress Assessment) of the application; those who haven't received other grants can complete these two pages with "nil".

Page 10 (Figure 7), entitled *Protection of Human Rights and Compliance with Laws and Regulations*, addresses a key aspect of ethical research processes. Specifically, this page requires information regarding questionnaire surveys, research involving target populations, and experiments that require approval from the applicant's institutional ethics committee to be detailed so as to clarify the applicant's compliance with the rules and laws connected to their proposed research.

In the *Rationality and Justification of the Research Costs* section, applicants are required to explain the reasoning, necessity and grounds for the research budget shown in the following two pages of the application. Previous recipients emphasized the importance of explaining succinctly why the costs detailed on pp. 11-12 were needed (e.g. funds not available from your workplace, size of the request) and the integral importance of the funding to the success of the research proposal.



Scientific Research C (General) - 10

Protection of Human Rights and Compliance with Laws and Regulations (see procedure for application)

Describe the measures and action that you will take if your research involves compliance with the related laws and regulations (e.g. research requiring the consent and the cooperation of the other party when implementing the research plan, research requiring consideration for the handling of personal information and research requiring efforts regarding bioethics and safety measures). This applies to surveys, research, experiments which require an approval procedure in an ethics committee outside the research institution, such as for example questionnaire surveys in which personal information is involved, interview surveys, the use of provided samples , analysis study of the human genome, recombinant DNA experiments, experiments on animals, etc. Please indicate where this is not applicable.

As this research requires data from medical students and doctor-tutors, appropriate consent documentation will be required for all the universities participating in this study.
(1) I will prepare letters to gain access to students and staff members to collect data for research purposes.
(2) I will prepare consent forms for all participants for interviews and observations.
(3) I will put these materials and my proposal to the Ethics Committee of Hamamatsu University School of Medicine to ensure compliance and for their approval.

Rationality and Justification of the Research Costs

The applicant should explain the rationality, necessity and grounds for calculating the research cost to be stated on the following page and thereafter, based on the scale and organization of the research given in *Research Plan and Methods*. Indicate the necessity of the cost (e.g. breakdown) if, in any fiscal year of the research project, any of the costs (equipment, travel expenses, and personnel expenditure and remuneration), and suchlike) exceeds 90% of the entire research funding, or if there is any other predominant cost.

In order to collect the necessary data to answer the proposed research questions, the equipment and transportation costs (domestic and oversea) detailed are necessary to ensure maximum accuracy. It is very important for the research to be able to physically visit the target medical universities for this original research to (1) promote this research, (2) facilitate uptake of the survey instruments, (3) observe and document various models of PBL, (4) collect interview data, and (5) examine original source data of PBL development at each institution.

The website development and set-up costs are an unavoidable expense to enable this research to survey the widest possible pool of respondents as well as to distribute the results to the widest audience of academics and fellow researchers. The website will also need to be bilingual: in Japanese and English. Statistical software will be needed to process and analyze the data collected each year.

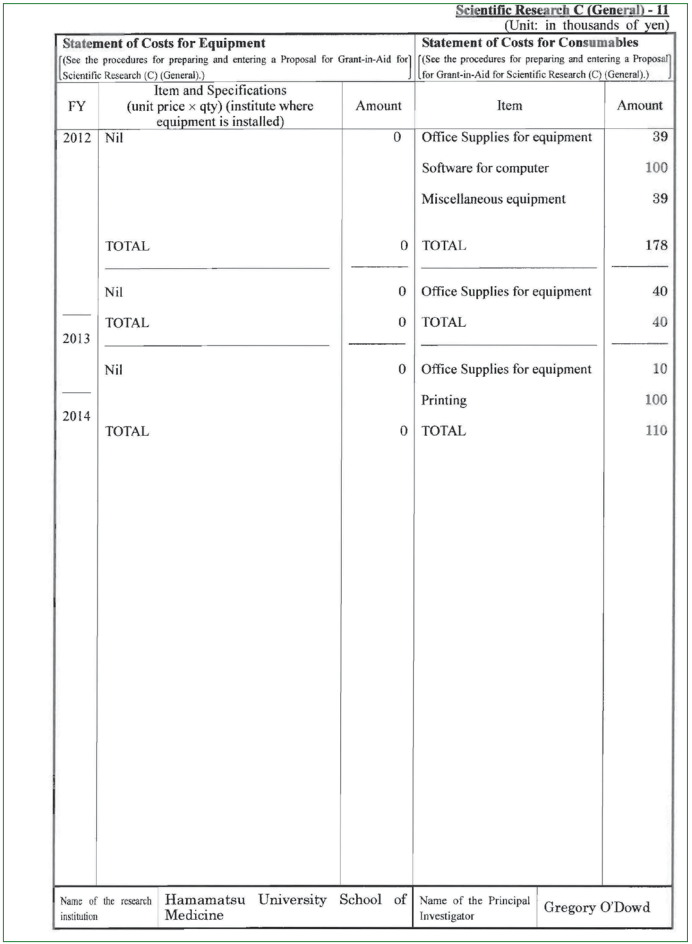
Printing costs are necessary for distribution of the research report and findings to journals and publications, both domestic and foreign.

Figure 7. Page 10: Protection of Human Rights and Compliance with Laws and Regulations

As mentioned previously, Pages 11 and 12 (Figures 8 & 9) require a complete accounting estimate of the items of equipment, consumables and travel expenses requiring funding over the three year period of the proposed research plan. Advice from previous applicants suggests that particular attention needs to be given to specific budgetary details regarding human resources to be utilized, facilities to be set up, special equipment needed for the project, timelines, requests for specific funding and expected outcomes, and any application which includes items that are normally purchased through university research budgets are more likely to be rejected. They also noted that applicants on average receive only 70% of the total costs applied for included for specific items, and that:

1. Listing "zeroes" in many areas make the application appear less reliable;
2. Fundamentally, this budget is not for the purchase of equipment normally bought through regular university research budgets, i.e., new computers and printers;
3. Expenses for Co-investigators should also be shown in the same detail, as outlined in the manual.

It was also suggested that some inflation of the numbers was necessary as successful applicants, although awarded the full grant requested, on average have access to only 70% of the funding as the host university/institution retains approximately 30% for "administrative supervision"; this is permitted by JSPS.



Scientific Research C (General) - 11
(Unit: in thousands of yen)

Statement of Costs for Equipment
(See the procedures for preparing and entering a Proposal for Grant-in-Aid for Scientific Research (C) (General).)

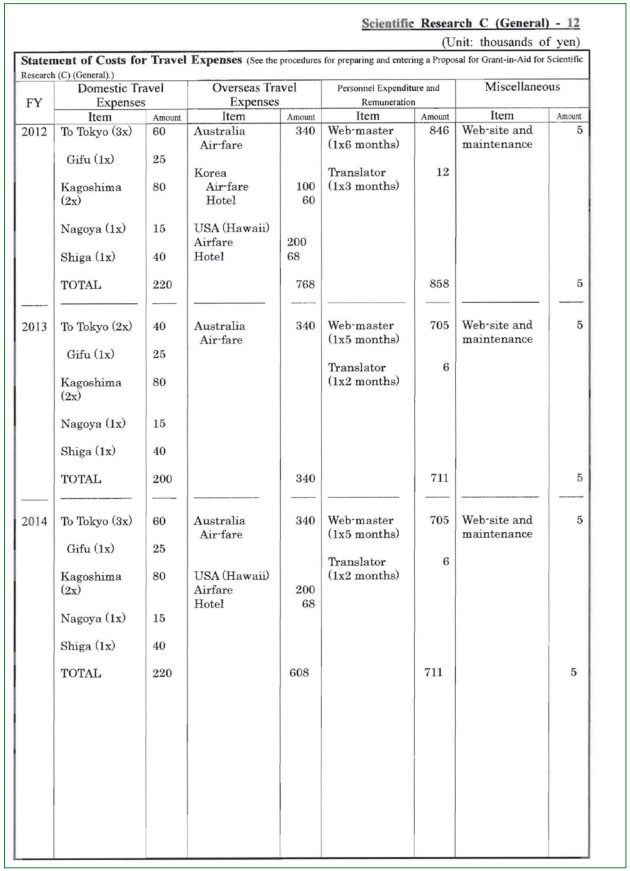
FY	Item and Specifications (unit price × qty) (institute where equipment is installed)	Amount
2012	Nil	0
	TOTAL	0
2013	Nil	0
	TOTAL	0
2014	Nil	0
	TOTAL	0

Statement of Costs for Consumables
(See the procedures for preparing and entering a Proposal for Grant-in-Aid for Scientific Research (C) (General).)

Item	Amount
Office Supplies for equipment	39
Software for computer	100
Miscellaneous equipment	39
TOTAL	178
Office Supplies for equipment	40
TOTAL	40
Office Supplies for equipment	10
Printing	100
TOTAL	110

Name of the research institution	Hamamatsu University School of Medicine	Name of the Principal Investigator	Gregory O'Dowd

Figure 8. Page 11: Statement of Costs of Equipment



Scientific Research C (General) - 12

(Unit: thousands of yen)

Statement of Costs for Travel Expenses (See the procedures for preparing and entering a Proposal for Grant-in-Aid for Scientific Research (C) (General).)

FY	Domestic Travel Expenses		Overseas Travel Expenses		Personnel Expenditure and Remuneration		Miscellaneous	
	Item	Amount	Item	Amount	Item	Amount	Item	Amount
2012	To Tokyo (3x)	60	Australia Air-fare	340	Web-master (1x6 months)	846	Web-site and maintenance	5
	Gifu (1x)	25						
			Korea		Translator (1x3 months)	12		
	Kagoshima (2x)	80	Air-fare	100				
			Hotel	60				
	Nagoya (1x)	15	USA (Hawaii)					
			Airfare	200				
	Shiga (1x)	40	Hotel	68				
	TOTAL	220		768		858		5
2013	To Tokyo (2x)	40	Australia Air-fare	340	Web-master (1x5 months)	705	Web-site and maintenance	5
	Gifu (1x)	25						
					Translator (1x2 months)	6		
	Kagoshima (2x)	80						
	Nagoya (1x)	15						
	Shiga (1x)	40						
	TOTAL	200		340		711		5
2014	To Tokyo (3x)	60	Australia Air-fare	340	Web-master (1x5 months)	705	Web-site and maintenance	5
	Gifu (1x)	25						
					Translator (1x2 months)	6		
	Kagoshima (2x)	80	USA (Hawaii) Airfare	200				
			Hotel	68				
	Nagoya (1x)	15						
	Shiga (1x)	40						
	TOTAL	220		608		711		5

Figure 9. Page 12: Statement of Costs of Equipment

Pages 13 (Figure 10) and 14, entitled *Application for Research Funding, Current State of Funding and Effort*, require the following:

- The effort needed for research activity as a percentage of time allocation (%) where the entire yearly working time is 100%;
- The title of the research project (required here for the first time!);
- Any research funding to be competitively provided by the research institution to which the researcher belongs.

Each of the previous recipients agreed that, as a rule of thumb, the Principal Investigator's effort can be listed as 15%-30%, while for Co-investigators around 5% is deemed to be sufficient. Applicants should ensure the total effort adds up to 100%.

To be filled in and attached by the Principal Investigator

Scientific Research C (General) - 13

Application for Research Funding, Current State of Funding and Effort

Since examiners will refer to the information stated here in the second screening (collegial screening) when they discuss whether a research project will be able to be sufficiently implemented without causing unreasonable duplication or excessive concentration of research funding, it is necessary that the applicant correctly states the budget for the proposed research project that he or she receives and uses. The applicant should take into account the following: (1) research funding under application, (2) research funding to be granted and (3) other activities at the time of application by the Principal Investigator. Distinguish between sources of research funding. If there is more than one. For the exact method for filling in the necessary data, the applicant should verify the procedures for preparing and entering the proposal for grant-in-aid for Scientific Research C (General).

1) Fill in *Effort* with a percentage of time allocation (%) necessary for the implementation of the research where the entire yearly working time is set at 100%.
2) State the title of the research project at the beginning of *Research funding applied for*.
3) In the case of a KAKENHI for "Scientific Research on Innovative Areas (Research in a proposed research area)" or "Scientific Research on Priority Areas", the applicant should state whether it is "planned research" or "invited research".
4) Include research funding to be competitively provided by the research institution to which the researcher belongs.

(1) Research funding applied for

Funding system and name of the research funding (research period and name of the funding organization	Title of the research project (name of the Principal Investigator)	Role (Principal Investigator or Co-Investigator (Kyodo-kenkyusha))	Budget for FY2012 (throughout the period) (thousands of yen)	Effort (%)	Differences in details of research and reasons for additional application for a grant for the current research project (In the case of a Principal Investigator (or a researcher who receives the grant for the whole program, like, for example, the Project Leader), the amount to receive for the whole research period (or for the whole program) should be entered)
Research project for which a grant is applied Scientific Research (C) (General) (2012–2014)	日本の医科大学における問題解決学習の発達 (Gregory O'Dowd)	Principal Investigator	2029 (4979)	30	Whole period research cost: 4,979,000 yen

Name of the research institution	Hamamatsu University School of Medicine	Name of the Principal Investigator	Gregory O'Dowd

Figure 10. Page 13: Application for Research Funding, Current State of Funding and Effort

Penalties for Misuse of Funds

As with any loan or grant from a financial institution or governing body, a recipient must fulfill the terms of the agreement. And, although noted in the documentation, each of the previous recipients was unaware of the specific penalties surrounding misuse of grant funds. As such, it appears that the following information is worthy of note.

In the case of misuse of grant funds, severe penalties will be imposed. Applicants found to have misused money must return the subjected portion of grant funds, and there will be 2-5 year loss of grant-application eligibility for both the researcher who misused the funds and any accomplices. For other cooperating researchers, there will be a 1-year suspension of eligibility to apply for new grants. In the case that a grant is awarded based on false or inaccurate statements, the entire amount of grant disbursed shall be returned, and there will be a 5-year loss of grant-application eligibility for both grantee and any accomplices. In addition, grant disbursement will be stopped for any other ongoing projects. The Co-investigator (*kenkyū-buntansha*) no longer will receive a portion of the grant, and eligibility to apply for other competitive funding will also be suspended. It should also be noted that the bad publicity received by the applicant's institution (i.e., national newspaper reports detailing the misuse) may offer sufficient motive for the applicant's employment being terminated.

Conclusion

As the odds of success in being awarded a grant are decreasing each year due to the ever-increasing budget reductions, it is vitally important that new applicants access every source of information regarding the application process. With new Kakenhi grant awards available in 2013, now is the time to reflect on past applications and how they can be improved, or to consider what areas of research you would like to follow in applying for a grant this year. As mentioned, it may still simply be hit-or-miss with the judge who evaluates your particular application; nevertheless, following the advice of successful applicants and prior judges will undoubtedly enhance your chances of being successful in the future.

Finally, for all applicants, it is important to remember that winning the grant is not the end, but the start of a three-year association with the Kakenhi program. For unsuccessful applicants, with the competition for funding becoming more and more difficult, you should be aware that your institution will expect you to apply again each year and to eventually be successful, so your effort to familiarize yourself with the process and requirements is vital.

Bio Data

Gregory O'Dowd was awarded his Masters of Arts (TESOL) from Columbia University Teachers College and is the Foreign Language Instructor at HUSM. His research interests include speaking and listening skills as well as classroom dynamics, student motivation, life-long learning and problem-based learning. He was awarded a JSPS grants-in-aid in 2012 for his research into Japanese PBL.

David Elmes graduated in 1990 from the Faculty of Education at the University of Lethbridge, Canada, and received a Master of Applied Linguistics from the University of Southern Queensland, Australia in 2006. He has taught both junior and senior high school English, Social Studies, and Physical Education in Canada, and has worked in all areas of English language education since coming to Japan in 1995.

References

Japan Society for the Promotion of Science. (2010). 科学研究費助成事業. In日本学術振興会. Retrieved from http://www.jsps.go.jp/j-grantsinaid/index.html.

Japan Society for the Promotion of Science. (2010). JSPS Program Information. In *Japan Society for the Promotion of Science*. Retrieved from http://www.jsps.go.jp/english/e-grants/grants.html.

Ministry of Education, Culture, Sports, Science and Technology-Japan. (n.d.). 科学研究費助成事業. In文部科学省. Retrieved from http://www.mext.go.jp/a_menu/shinkou/hojyo/main5_a5.htm.

National Institute of Informatics. (2011). Kaken. In科学研究費補助金データベース. Retrieved from http://seika.nii.ac.jp/.

Appendix

Useful Websites and Information Regarding the Kakenhi Program

The MEXT and JSPS websites offer a wide range of information in English regarding application forms, procedures, and manuals. More specific information surrounding the Kakenhi Program, such as an introduction to Kakenhi-supported research and a description of the Scientific Research on Priority Areas and Scientific Research on Innovative Areas grant categories, is available in Japanese only.

- **MEXT:**
  - » http://www.mext.go.jp/a_menu/shinkou/hojyo/main5_a5.htm
- **JSPS:**
  - » http://www.jsps.go.jp/j-grantsinaid/index.html
  - » http://www.jsps.go.jp/english/e-grants/grants.html
  - » http://seika.nii.ac.jp/

This website (with an English link, http://kaken.nii.ac.jp/en/) allows applicants to view previously successful applications using a searchable database.

- » http://www.e-rad.go.jp/

The e-Rad Research and Development website is the place to input, save and submit final data, and to view submitted information and the results of judging.

Inquiries: Applicants can contact the following two addresses for specific inquiries regarding the Kakenhi application and procedures:

Scientific Research Aid Division
Research Promotion Bureau
Ministry of Education, Culture, Sports, Science & Technology
3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959
Tel: +81-3-5253-4111(Reception)
http://www.mext.go.jp/a_menu/shinkou/hojyo/main5_a5.htm

Research Aid Division, Research Program Department
Japan Society for the Promotion of Science
8 Ichibancho, Chiyodaku-ku, Tokyo 102-8472
Tel: +81-3-3263-0964
http://www.jsps.go.jp/j-grantsinaid/index.html