

Slide 1



Arrival at UT in 2015, Inquired in 2016, Applied in 2017, granted June 22nd 2018

Slide 2

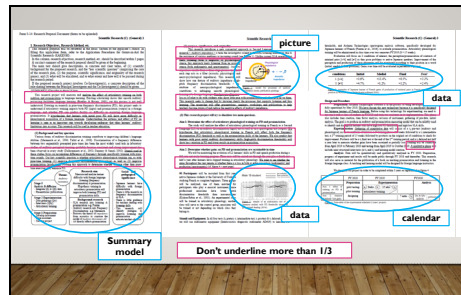


Kakenhi has 2 Ks

Slide 3



Slide 4



Advice received :

Told that some examiners sort applications out by a glance : applications piled on left are OUT and on the right IN for further review.

Importance of Form over content in Japan : KATACHI

Judgment on first look : does one want to proceed and read this? Is there something to catch the eye?

I was told by an examiner and at a glance at my final version of the grant application : « You'll get it »

Do important data & ideas stand out?

Are the text and tables adequately balanced?

Is there just enough and not too much text underlined? Underline less than 1/3 of text (see red boxes)

You have 3 pages : use them all up / use graphs-pics-etc to illustrate meaning of text.

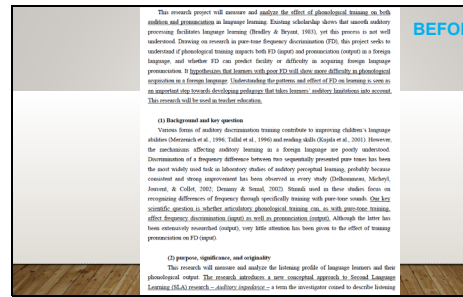
Grant applications in Japan rely more than in other countries on visual aids.

Find coherence & balance of tables/graphs : (see circled elements in blue)

- Summary model : that includes all key information
- Theoretical graph (or picture) / or doodle / pictogram / photograph
- Measuring process : input (data) / output (data) / diagram / graph
- Calendar of project

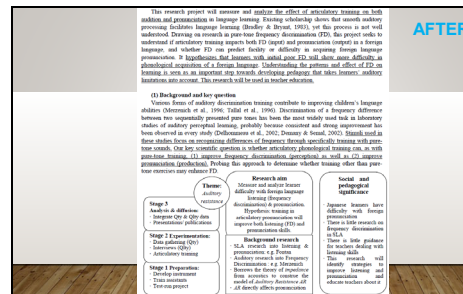
Perusal of a Successful Kakenhi Application : Drafting a Winning Grant Application in Japan
Bruno Jactat, July 22, 2019 Mon 9:30 11:40 University of Tsukuba

Slide 5



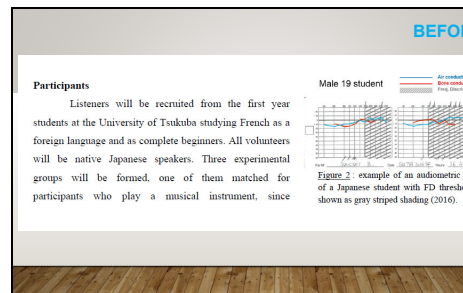
Advice received :
A schematic figure for your experimental design may help reviewers

Slide 6



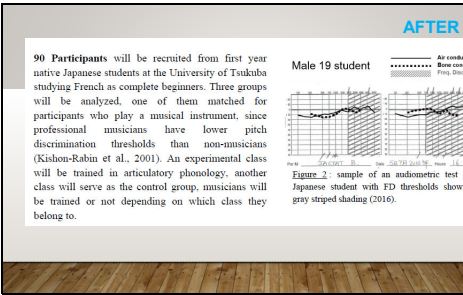
schematic figure added

Slide 7



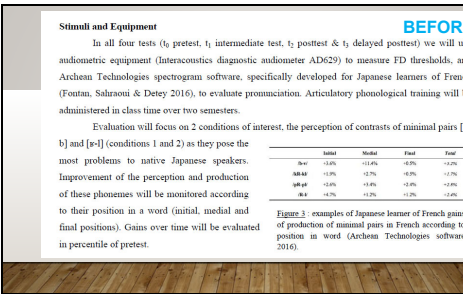
Advice received :
Reviewers receive a grey scale print. Make sure that your color figures are recognized well.

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grey scaled

Slide 9



Advice received :
The figures and letters in Fig.3 are too small. Please be kind to aged reviewers.

Slide 10

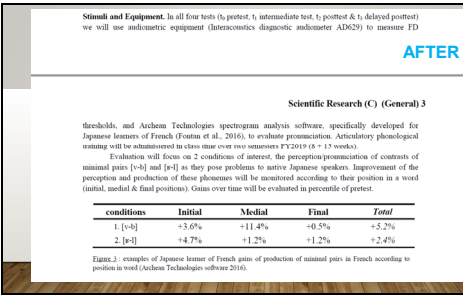


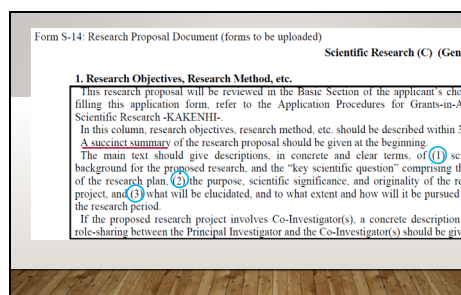
Fig.3 simplified and made readable with larger fonts.

Slide 11

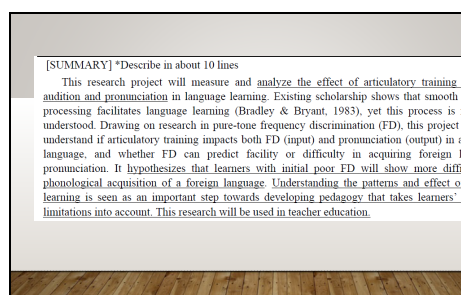


Once the Katachi screening passed then comes Content.

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Slide 13



Advice received :
Probably the most important to grab the examiners interest.
Needs to be well written.

Advice received :
Assume that many of four reviewers of your application are ignorant about your field and unfamiliar with most technical terms such as articulatory phonology, auditory impedance, etc. Use as plain language as possible and use a concrete expression instead of abstract and/or general expression.

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Slide 14

Form S-14: Research Proposal Document (forms to be uploaded)

Scientific Research (C) (General)

1. Research Objectives, Research Method, etc.

This research proposal will be reviewed in the Basic Section of the applicant's choice filling this application form, refer to the Application Procedures for Grants-in-Aid Scientific Research -KAKENHI-.

In this column, research objectives, research method, etc. should be described within 3 p. A succinct summary of the research proposal should be given at the beginning.

The main text should give descriptions, in concrete and clear terms, of (1) scientific background for the proposed research, and the "key scientific question" comprising the of the research plan, (2) the purpose, scientific significance, and originality of the research project, and (3) what will be elucidated, and to what extent and how will it be pursued during the research period.

If the proposed research project involves Co-Investigator(s), a concrete description of role-sharing between the Principal Investigator and the Co-Investigator(s) should be given.

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(1) Background and key question

Various forms of auditory discrimination training contribute to improving children's language abilities (Mennicken et al., 1996; Tallal et al., 1996). Discrimination of a frequency difference between two sequentially presented pure tones has been the most widely used task in laboratory studies of auditory perceptual learning, probably because consistent and strong improvement has been observed in every study (Dehaene et al., 2002; Dehaene & Seneval, 2002). Stimuli used in these studies focus on recognizing differences of frequency through specifically training with pure tone sounds. **Our key scientific question** is whether articulatory phonological training can, as with pure-tone training, (1) improve frequency discrimination (perception), as well as (2) improve pronunciation (production). Probing this approach to determine whether training other than pure-tone exercises may enhance FD.

Theme: Auditory discrimination	Research aim Measure and analyze learner difficulty with foreign language listening (frequency discrimination & pronunciation). Hypothesis: training in articulatory pronunciation will improve both listening (FD) and pronunciation skills.	Social and pedagogical significance • Japanese learners have difficulty with foreign pronunciation. • There is little research on frequency discrimination in SLA. • There is little guidance for teachers dealing with listening skills. • This research will identify strategies to improve listening and pronunciation and educate teachers about it.
Stage 3 Analysis & discussion: • Analyze Q1 & Q2 data • Presentation: publications	Background research • SLA research into listening & pronunciation e.g. Form • Auditory research into Frequency Discrimination e.g. Mennicken • Reviews the theory of impedance from acoustics to construct the model of Auditory Resonance AB • AB directly affects pronunciation	
Stage 2 Experimentation: • Data gathering (Q1) • Interviews (Q2) • Articulatory training		
Stage 1 Preparation: • Develop instrument • Train assistants • Test-run project		

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Scientific Research (C) (General) 2

(2) purpose, significance, and originality
 This research introduces a new conceptual approach to Second Language Learning (SLA) research – *Auditory Impedance* – a term the investigator coined to describe listening hindrances due to the resistance of various mediums to incoming sound (see Figure 1). Unlike current SLA research that treats listening from a linguistic or psychological stance, this approach treats listening from an acoustic stance (both andometric and spectrometric). *Auditory Impedance* results from a three stage process in which each step acts as a filter (acoustic, physiological and neuro-psychological impedance). This research will show how one feature of auditory impedance (high-pitch frequency discrimination thresholds – an attribute of neuropsychological impedance) contributes to inflicting smooth phonological learning of a foreign language. Teachers are often at a loss as to what to do with students who show little ease with pronunciation and often give up on them. This research seeks to change that by showing clearly the processes that supports listening and thus learning. The researcher will offer presentations, seminars, workshops and publications to help teachers become aware of and reduce the negative effects of auditory impedance.

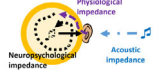


Figure 1. model for processes of auditory impedance (Jactat, publication pending).

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Form S-14: Research Proposal Document (forms to be uploaded)

Scientific Research (C) (General)

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(3) This research project will try to elucidate two main questions.

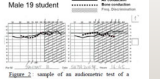
WHAT?

Aim 1: Determine the effect of articulatory phonological training on FD and pronunciation.
 The study will analyze the effect of articulatory phonological training in French as a Second Language (L2) on an auditory discrimination (input) test as well as on a spectrogram test (output). We hypothesize that articulatory phonological training in French will affect both the frequency discrimination (FD) threshold as well as the pronunciation skill of the learners. We also predict that learners with poor initial auditory discriminatory skills (high-pitch discrimination thresholds) will show less variation in FD and better results in pronunciation acquisition.

Aim 2: Determine whether gains on FD and pronunciation are sustainable in time.
 We will be monitoring the evolution of L2 learners' skills in FD and speech production during a full year university learning program. Three tests will be carried out through the year plus a fourth test half a year after learners have stopped training in articulatory phonology. We want to see whether the gains throughout the year remain or whether there is a loss in both in either perception (audiometric) and production (spectrometric) (cf. figure 4 – next page).

HOW?

90 Participants will be recruited from first year native Japanese students at the University of Tsukuba studying French as complete beginners. These groups will be analyzed, one of them matched the participants who play a musical instrument, since professional musicians have lower pitch discrimination thresholds than non-musicians (Krause-Rahus et al., 2001). An experimental class will be trained in articulatory phonology, another class will serve as the control group. Inexperienced will be trained or not depending on which class they belong to.



Advice received:

For example you say “the listening profile of language learners”. Please assume that most of the reviewers cannot imagine exactly what “listening profile” means. If you say a listening score of the TOEIC examination, for example, there is no room for miscommunication. Be concrete.

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Male 19 student

Figure 2: sample of an audiometric test of a Japanese student with FD thresholds shown a gray striped shading (2016).

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Stimuli and Equipment. In all four tests (t₀ pretest, t₁ intermediate test, t₂ posttest & t₃ delayed posttest) we will use audiometric equipment (Interacoustics diagnostic audiometer AD929) to measure FD

Scientific Research (C) (General) 3

thresholds, and Arctem Technologies spectrogram analysis software, specifically developed for Japanese learners of French (Foutin et al., 2016), to evaluate pronunciation. Articulatory phonological training will be administered in class time over two semesters (FY2019 (8 + 13 weeks)).

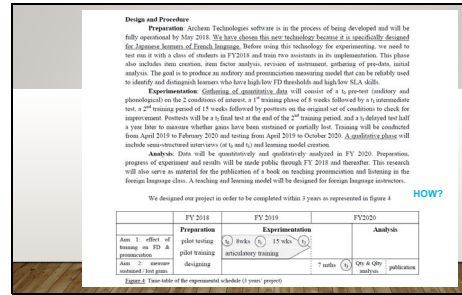
Evaluation will focus on 2 conditions of interest, the perception/pronunciation of contrasts of minimal pairs [v-b] and [r-l] as they pose problems to native Japanese speakers. Improvement of the perception and production of these phonemes will be monitored according to their position in a word (initial, medial & final positions). Gains over time will be evaluated in percentile of pretest.

conditions	Initial	Medial	Final	Total
1. [v-b]	+3.6%	+11.4%	+0.5%	+5.2%
2. [r-l]	+4.7%	+1.2%	+1.2%	+2.4%

Figure 2 : examples of Japanese learner of French gains of production of minimal pairs in French according to position in word (Arctem Technologies software 2016).

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Scientific Research (C) (Gen)

2. Research Development Leading to Conception of the Present Research Proposal

In this column, descriptions should be given within 1 page, of (1) applicant's research history leading to the conception of this research proposal, (2) domestic and overseas related to the proposed research and the positioning of this research in the relevant field, (3) applicant's hitherto research activities, and (4) preparation status and feasibility research plan.

If the applicant has taken leave of absence from research activity for some period (e.g. maternity and/or child-care), he/she may choose to write about it in "(3) applicant's hitherto research activities".

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BEFORE

(1) This project will draw extensively on the experience of the investigator in the field of processing disorders. Before being hired at the current university position in 2015, the researcher trained and worked in the private field since 2005 both in France and Japan with language learners from 70 different countries. Training focused on helping learners with slight to severe auditory problems to attain a certain degree of auditory functionality through auditory reeducation which led to better language skills.

Japanese students show specific difficulties with foreign language comprehension and pronunciation skills. Previous data gathering of learners' auditory profiles in 2016 inclines us to think that this is partly due to a high threshold in frequency discrimination (FD) seen among most students. This project will further allow to clarify the influence of FD on students' capacity to discriminate and pronounce minimal pairs in a new language (in this case French).

Advice received :

The first paragraph is always important because it is least likely to be skipped by a reviewer. I think that it is good to describe what really motivated you to perform this project, maybe your passion wanting to know something.

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AFTER

(1) Research history

This project will draw extensively on the experience of the investigator in the field of processing disorders. Before being hired at the current university position in October 2015, the researcher had coached students and instructors of some 70 different countries in the private field (CIEL Inter Center for Language Studies; Auricula Developmental Disorders Reeducation Center). Training for helping learners with slight to severe auditory problems regain a certain degree of auditory function through auditory reeducation which led to better language skills. These factors were influential in the researcher's motivation to help Japanese university students overcome language barriers.

Actually, Japanese learners show specific difficulties with foreign language comprehension pronunciation skills. Audiometric data gathering of learners' auditory profiles in 2016 (see figure 2) inclines us to believe that this is partly due to a high threshold in frequency discrimination (FD). I am enthusiastic about pursuing this research as it will allow to clarify the influence of FD on students' ability to distinguish and pronounce minimal pairs in a new language (in this case French). This data is essential in understanding how to improve pronunciation teaching and in helping train teachers to do so.

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Scientific Research (C) (General)

2. Research Development Leading to Conception of the Present Research Proposal

In this column, descriptions should be given within 1 page, of (1) applicant's research history leading to the conception of this research proposal, (2) domestic and overseas research related to the proposed research and the positioning of this research in the relevant field, (3) applicant's hitherto research activities, and (4) preparation status and feasibility of the research plan.

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(2) Trends

The branch of SLA which studies pronunciation teaching has actually produced very little (Derriving & Munro, 2005). Nevertheless, recent studies that try to understand how Japanese learners comprehend and produce French phonemes (Fontan, Sahraoui & Detey, 2016) has led to the development of online software to analyze these skills (Archean technologies, release date May 2018). Based on this research, we will investigate Japanese students' difficulty with French language learning by focusing on their FD thresholds. This innovative approach to SLA will be best carried out by the PI who is a seasoned language instructor and possesses extensive experience in audiology testing, a combination of skills not found among language instructors, which explains why such research has not yet been carried out.

Advice received :

Reviewers are trained to hate "I do this because there is no study"-type arguments. Please backup your argument by adding the following claims:

- ☐ Why it is so important to study this.
- ☐ There is a reason why others did not or cannot study this. But I can do it because I have a special tool, skill, viewpoint, opportunity etc.

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Scientific Research (C) (General)

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(3) Research activities

Indeed, as a result of working with audition since 2005, the investigator has naturally studied the use of communication strategies (Jactat, 2017) and interactive listening strategies (Jactat, 2017) relation to the listening capacity of learners. His passion in helping people overcome their difficulties in language learning has led him to want to investigate this field scientifically. This opportunity to use his experience in carrying out audiometric testing will furthermore benefit teacher training programs in the future.

What's your story? How does everything you've done so far contribute to your unique story?

Advice received :

Please express your enthusiasm to study this and your self-confidence that you are the best person to work on the study because of your skill, experience and insights etc.

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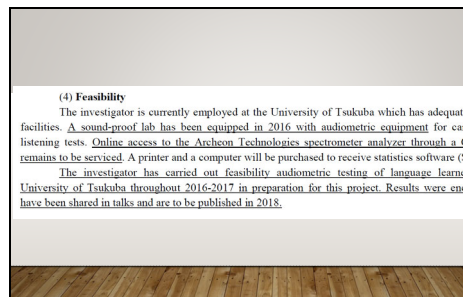
Scientific Research (C) (General)

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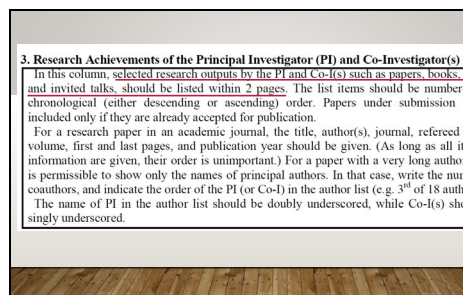
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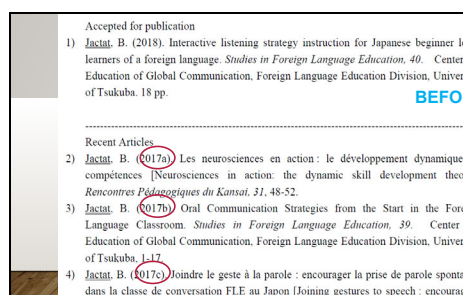
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Advice received :

Please follow the instruction of listing your research achievements faithfully. The instruction reads, "For a research paper in an academic journal, the title, author(s), journal, refereed or not, volume, first and last pages, and publication year should be given....." They do not allow a style like (2017a), (2017b) for example.

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Accepted for publication	
1)	Jactat, B. (2018). Interactive listening strategy instruction for Japanese beginner level learners of a foreign language. <i>Studies in Foreign Language Education</i> , 40. Center for Education of Global Communication, Foreign Language Education Division, University of Tsukuba. 18 pp. <u>Refereed</u> .
Recent Articles	
2)	Jactat, B. (2017). Les neurosciences en action : le développement dynamique de compétences [Neurosciences in action: the dynamic skill development theory]. <i>Rencontres Pédagogiques du Konat</i> , 31, 48-55. <u>Not refereed</u> .
3)	Jactat, B. (2017). Oral Communication Strategies from the Start in the Foreign Language Classroom. <i>Studies in Foreign Language Education</i> , 39. Center for Education of Global Communication, Foreign Language Education Division, University of Tsukuba. 1-17. Refereed.
4)	Jactat, B. (2017). Joindre le geste à la parole : encourager la prise de parole spontanée dans la classe de conversation FLE au Japon [Joining gestures to speech : encouraging spontaneous talk in the French foreign language classroom in Japan]. <i>Vivre et travailler au Japon. Cahiers d'Etudes Interculturelles</i> , N°4, 5-31. Refereed.

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Related Talks	
5)	Jactat, B. (2017). Ouverture et fermeture : le profil d'écoute révélateur de motivation ? [Aperture and closure: listening profile as revealer of motivation?]. 4e congrès CAP-FIPEF, Kyoto.
6)	Jactat, B. (2017). Language learning: How the brain learns & resists learning. アルプス 学術交流協会, Matsumoto.
7)	Jactat, B. (2017). Le Français sur le Pouce : Les neurosciences en action [French on the Go : neurosciences in action]. RPK 31 ^{ème} , Nagoya.
8)	Jactat, B. (2016). Petra co se? Les stratégies de communication comme fondement du désir de communiquer en FLE [What is it? Communication strategies as basis for the desire to communicate in French as a foreign language]. La 30 ^{ème} Journée Pédagogique de Dokkyo, Tokyo.
9)	Jactat, B. (2016). Audiograms: can they alert us to difficulties students might face learning a foreign language? JALT 2016: 43rd Annual International Conference on Language Teaching and Learning & Educational Materials Exhibition.
10)	Jactat, B. (2016). Gestes et parole comme stratégies de communication [Gestures and speech as communication strategies]. 第 14 回表現主体の外国語教育研究会

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研究経費とその必要性				基礎研究 (C) (一般) 〇 (金銭単位: 円)		
年度	設備品名・仕様	設置機関	数量	単価	金額	消耗品費の明細
H.30	Foreign publication books	University of Tsukuba	20	6	120	Material for presentation
H.30	Audiology and acoustics related books	University of Tsukuba	10	15	150	Memory sticks 32 MB (855)
H.30	Notebook Sony	University of Tsukuba	1	200	200	Archeon Technologies software
H.30	Printer Epson	University of Tsukuba	1	20	20	Software for statistics (SPSS)
H.30						Articulatory training material
H.30						Wireless laser pointer/presenter
H.30				計	490	計
H.31						Material for presentation
H.31				計	0	計
H.32	BEFORE					Material for presentation
H.32						Book publication
H.32				計	0	計

Advice received :
All the items that you listed as “Equipment or Buhin” are supposed to be listed as “Consumables or Shomohin”. On the other hand, the expensive software, “Archeon Technologies software” and “SPSS” are supposed to be listed as an Equipment according to the accounting rules of the University of Tsukuba. For details, please ask clerical staff at your supporting office.

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研究経費とその必要性					基盤研究 (C) (一般) 9 - 1		(金額単位: 千円)	
年度	設備品費の明細	品名・仕様	設置機関	数量	単価	金額	消費品費の明細	金額
H.30	Foreign publication books		University of Tsukuba	20	6	120	Material for presentation	
H.30	Audiology and acoustics related books		University of Tsukuba	10	15	150	Memory sticks 32 MB (32G)	
H.30	Notebook Sony		University of Tsukuba	1	200	200	Archaeon technologies software	
H.30	Printer Epson		University of Tsukuba	1	20	20	Software for statistics (SPSS)	
H.30							Facultary training material	
H.30							Virtual tour printer / projector	
H.30						31		490
H.30							計	
H.31							Material for presentation	
H.31						計		0
H.32							Material for presentation	
H.32							Book publication	
H.32						計		0

items are reorganized into proper lists.

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FINAL SUGGESTIONS

- Start early
- Get help
- Get inspiration from other successful Kakenki applications
- Get feedback of your ideas / design/ writing from a diverse audience
- Keep it DISCO : Direct Interesting Simple Concise Organized
- Let your enthusiasm show
- Avoid mistakes that lead to dismissal

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THANK YOU !

- Prof. Hideyuki Kato
- Mr. Shogo Kurihara

Research administrators of
Research Administration/Management office
University of Tsukuba

Thank you for your advice and support !