

# NEH Application Cover Sheet

## Digital Humanities Start-up Grants

### PROJECT DIRECTOR

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**Field of Expertise:** Languages: Comparative Languages

### INSTITUTION

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Kent State University  
Kent, OH UNITED STATES

### APPLICATION INFORMATION

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**Title:** *Building a Multilingual Database of Graded Translation Examinations*

**Grant Period:** From 6/2014 to 8/2015

**Field of Project:** Languages: Languages, General; Languages: Linguistics

**Description of Project:** A Level II Digital Humanities Start-Up Grant would fund creation of query and analysis screens for an existing database structure designed to be populated with data and metadata from over 3,000 American Translators Association graded translation examinations representing 25 language pairs, with target-text errors identified and explicitly aligned with their source texts. The present project uses a collaborative approach with a graduate computer science student to develop query and analysis structures to extract meaningful data, using an iterative process on a subset of the 2006 data while developing the query and analysis screens, testing the output for accuracy and usefulness in answering research questions and making revisions or developing new query/output structures. The populated database will be a powerful tool for quantitative and qualitative research in translation, applied and theoretical linguistics and psycholinguistics, comparative literature and translation pedagogy.

### BUDGET

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<b>Outright Request</b>	\$59,996.00	<b>Cost Sharing</b>	\$33,894.00
<b>Matching Request</b>	\$0.00	<b>Total Budget</b>	\$93,890.00
<b>Total NEH</b>	\$59,996.00		

### GRANT ADMINISTRATOR

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## **List of Participants**

### **Project: Building a multilingual database of graded translation examinations**

1. Dr. Geoffrey S. Koby – Kent State University, Modern & Classical Language Studies
2. Dr. Gertrud Champe – Independent scholar
3. Dr. Isabel Lacruz – Kent State University, Modern & Classical Language Studies
4. Graduate assistant to be hired – Kent State University, Computer Science

## **Abstract**

### **Project: Building a multilingual database of graded translation examinations**

A Level II Digital Humanities Start-Up Grant would fund creation of query and analysis screens for an existing database structure designed to be populated with data and metadata from over 3,000 American Translators Association graded translation examinations representing 25 language pairs, with target-text errors identified and explicitly aligned with their source texts. The present project uses a collaborative approach with a graduate computer science student to develop query and analysis structures to extract meaningful data, using an iterative process on a subset of the 2006 data while developing the query and analysis screens, testing the output for accuracy and usefulness in answering research questions and making revisions or developing new query/output structures. The populated database will be a powerful tool for quantitative and qualitative research in translation, applied and theoretical linguistics and psycholinguistics, comparative literature and translation pedagogy.

## **Statement of Innovation**

### **Project: Building a multilingual database of graded translation examinations**

This project enables digitization of new translation evaluation data, creating a unique structure that makes previously unavailable marked-up data available in a one-to-many alignment by sentence and by error severity and category between the source text and multiple target texts in each language pair, covering a range of correctness. This gives scholars in translation, linguistics, and comparative literature the first effective tool to compare and analyze translation errors on a large scale.

## **Statement of Humanities Significance**

### **Project: Building a multilingual database of graded translation examinations**

Precise translation is critical to global communication. The new tool will permit data retrieval in many collocations, providing data for comparative literature studies and subfields of theoretical/applied linguistics/psycholinguistics, e.g. language typology, pragmatics, and register, enabling analysis of many aspects of successful/unsuccessful translations, and providing translation process knowledge and evidence-based indications for improving translation testing, evaluation, and pedagogy.

# Building a multilingual database of graded translation examinations

## Introduction

In the field of Translation Studies, evaluation of translations is a natural and necessary task. However, it is complex and problematic because the intent of evaluation is to examine objectively work that has a significant subjective, black-box component where, even for the most straight-forward, non-literary text, there is not just a single acceptable translation. In the absence of a prescriptive “right answer,” the study of translation evaluation must concentrate on a search for a set of usable criteria that defines an acceptable, a good, or an excellent translation. Responsible, evidence-based statements about translation quality not only have theoretical interest for translation studies, but also have pedagogical interest for teachers and students of translation and pragmatic interest for members of the language professions, such as professional translators. Ultimately, the development of such criteria would positively affect translation quality, which would benefit both the commissioners and users of translations, as well as society as a whole. Given the importance of producing translations that render information precisely and in a way that can be accurately understood by the receiving culture, **it is the goal of the current project to further develop a database designed specifically to enable analysis of graded translation examinations from the American Translators Association (ATA). This tool will serve as a foundation for research in translation studies and linguistics, specifically in the fields of applied linguistics, translation assessment, translation pedagogy, and eventually comparative linguistics and short-term evolution of language. To that end, we are applying for a Level II Digital Humanities Start-Up Grant.**

Until now, researchers have been working with very small sample sizes.<sup>1</sup> However, in order to obtain widely generalizable results, there is a need for quantitative research with a large sample size. This need has been acknowledged by the ATA.<sup>2</sup> As part of an effort to address this issue, we have obtained access to a large body of graded certification examinations from past years, starting with 2006. The data set in each language pair in each testing year consists of a set of source texts and multiple translations of these texts, produced by candidates for certification, with graders’ markup of errors. A startup grant in 2012 funded the initial creation of a database structure to house and examine this body of data. The funding was only sufficient to create the basic database structure and input screens. In this structure, both the source texts and the target texts are stored in “exploded” form, that is, each word or punctuation mark is stored separately. In the data entry phase, competent translators in each language pair will align the errors marked in each target text with the corresponding units in the source text. Once entered into the database, these data will become a parallel and comparable corpus<sup>3</sup> of evaluated translations, which will provide humanities scholars working in translation, linguistics, and comparative literature with a unique and heretofore unavailable tool for analyzing and investigating translation behavior.

In the current project, the three co-principal investigators, as expert translators, propose a collaborative approach with a graduate student of computer science to develop the data query and analysis structures necessary in order to extract subsets of the data in meaningful ways. We envision an iterative process where the principal investigators will input a small sample subset of the 2006 data in their

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<sup>1</sup> For instance, Rothe-Neves 2002 attempts to derive an “index of translation quality” from a one-page sample of a literary text translated by twelve informants, six professional translators and six undergraduate students of a translation course. Howard 2009 uses six Japanese>English candidate translations from the 2004 ATA certification examination to correlate errors against reading level descriptors from the U.S. Interagency Language Roundtable (ILR) reading levels and the Common European Framework of References for Languages (CEFR).

<sup>2</sup> In 2009, two of the three co-PIs, Geoffrey Koby and Gertrud Champe, were invited to become members of the ATA Certification Committee, which operates the Certification Program. Dr. Koby currently chairs this committee.

<sup>3</sup> A parallel corpus is a corpus that contains a collection of original texts in language  $L_1$  and their translations into a set of languages  $L_2 \dots L_n$ . In most cases, parallel corpora contain data from only two languages. Closely related to parallel corpora are ‘comparable corpora,’ which consist of texts from two or more languages which are similar in genre, topic, register etc. without, however, containing the same content. (Glottopedia 2012).

working language pairs into the database, work with the programmer on developing the query and analysis screens, test the output for accuracy and usefulness in answering research questions, and request revisions or new development of query/output structures, depending on the results.<sup>4</sup>

## **Environmental Scan**

Corpora are widely used in translation studies and computational linguistics. These corpora collect large volumes of texts (sometimes with their translations) in order to conduct statistical, computational, translational and linguistic research. The relevant type of corpus here is the multilingual parallel corpus, which comprises source texts in one language along with their translations in another language or languages. Some corpora deal only with one language pair, while others include multiple language pairs.

Examples of current multilingual corpora include The Translational English Corpus (TEC) at the University of Manchester, England, which consists of written texts translated into English from a variety of source languages. Projects using TEC focus on two main areas: the way in which the patterning of translated text might be different from that of non-translated text in the same language, and stylistic variation across individual translators.

Government corpora include the United Nations General Assembly Resolutions: A Six-Language Parallel Corpus, a paragraph-aligned collection of resolutions of the General Assembly from Volume I of GA regular sessions 55-62, the European Parliament Proceedings Parallel Corpus 1996-2011, which was extracted from the proceedings of the European Parliament and includes versions in 21 European languages. The goal of this corpus was to generate sentence aligned text for statistical machine translation systems. Another government project is the JRC-Acquis project, which provides a large parallel corpus of documents for (computational) linguistics research purposes. The Acquis Communautaire (AC) is the total body of European Union (EU) law applicable in the the EU Member States, and the JRC Acquis project is a collection of parallel texts in 22 languages.

Other corpora projects include The English-Swedish Parallel Corpus, The English-Norwegian Parallel Corpus, CLUVI (Linguistic Corpus of the University of Vigo – contemporary Galician language), OPUS, the Open Parallel Corpus, the ZJU Corpus of Translational Chinese (ZCTC), the English/German Translation Corpus, the CEXI English-Italian Translational Corpus, CzEng (Czech-English Parallel Corpus), COMPARA is a bidirectional parallel corpus of English and Portuguese, the Babel English-Chinese Parallel Corpus, the Slovene-English Parallel Corpus IJS – ELAN, and many others.

The current project will result in a type of multilingual parallel corpus that differs from current corpora in significant ways. All of the preceding corpora projects assume that the texts that they include are well-formed, where the current project corpus explicitly records errors by severity level and category. Also, other corpora normally only include one source text and one target text, whereas the current project will include one source text and multiple (sometimes dozens) of target texts, which will permit comparative studies of translator behavior and textual features causing translation errors.

## **Materials**

### **Data**

The American Translators Association has been operating a translator certification program since 1963. Over the years, the certification examination has expanded from covering a handful of exclusively European language pairs<sup>5</sup> to testing 25 language pairs important in the global translation market, with examinations for even more language pairs still being developed. In the process, the examination has undergone continuous refinement, e.g., the grading scale has become more granular, error categories and the grading flowchart have been revised, a translation brief was introduced, and principles were developed for writing such a brief (see Koby and Champe 2013). Through the 2005 testing year,

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<sup>4</sup> In this process, it may also become necessary to enhance or modify the input screens; this would also be the task of the graduate assistant programmer as part of the project.

<sup>5</sup> English is always one member of the pair, either the source or the target language

examinations were destroyed after a holding period and were not released for research.<sup>6</sup> At present, the examinations for 2006, 2007, and 2008 are in our possession and another set of examinations will become available every year.

An ATA examination consists of three separate source passages of approximately 250 words each. Each candidate is required to translate a general passage, and must choose between a semi-technical passage and a commercial or legal passage.<sup>7</sup> The individual handwritten passages are marked by the graders with error codes indicating the category and severity of each error, or with quality points for particularly elegant solutions. Graders use a different color pen than the candidate. All passages are normally graded by two trained graders.<sup>8</sup> Graders are recruited from certified translators who receive excellent scores. They are trained using certification program materials and grade sample translations. New graders are mentored by the chair of the language pair.

In addition to the handwritten target texts with error markings, data contained in the paper examination files includes the three printed source texts (labeled by year), the unique serial number assigned to each examination, the language pair, a code identifying the grader, and the scores and pass/fail result as recorded by the graders.

## **Database**

As the data set is very large, it is impractical to conduct quantitative and qualitative research without computer assistance. In 2012, an initial database structure, funded by a grant from the College of Arts & Sciences at Kent State University, was designed by an advanced graduate student in Computer Information Systems as her final project for the Master's degree from Youngstown State University and validated by her faculty adviser and committee. A diagram of the present state of the design is attached as Appendix 1. Permanent hosting of the database will require purchase of dedicated server space at Kent State University. (No further facilities will be required in the short term.) The database, using MySQL, is designed for comprehensive capture of data from all aspects of the examination, both now and in the future, including 1) the source texts and their metadata (e.g. year, passage, instructions); 2) the target text, along with the marked error codes and severities; 3) the text of every error, keyed to specific locations in the candidate's target text and linked to the relevant segments in the source text; 4) grader identification code; and 5) storage of both acceptably high-resolution color scans of the original examination papers and Unicode text files containing the electronic text of the candidate's examination passages. Using PHP technology, this database will be made accessible to qualified researchers via the Internet. (The American Translators Association will also have access to the data.) The database is designed for expansion, so that as examinations from additional testing years are supplied by ATA, they can be entered and analyzed, providing additional depth and breadth of analysis.

Once populated, this relational database will enable both quantitative and qualitative analysis of translation solutions (both correct and erroneous) and of grading practices. The stored data will constitute a multilingual parallel and comparable corpus of sets (in the various language pairs) of a single source text with multiple target texts produced by candidates. It will also include metadata about the examination, metadata about the graders, and target-text errors as marked by the graders, which are explicitly aligned with the corresponding source text segments. In addition, we will develop an explicit alignment by sentence. The unique feature of the database, apart from its size, will be the alignment of each source segment with a number of target solutions covering a range of correctness. It will be structured to allow identification and analysis of both correct and erroneous translation solutions (as determined by graders), translator behavior, grading practices, and examination of questions regarding syntactic, semantic and pragmatic aspects of translation solutions.

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<sup>6</sup> With one minor exception: see Howard 2009.

<sup>7</sup> See Koby & Champe 2012 for an extensive description of the ATA Translator Certification Program.

<sup>8</sup> The ATA provides for reviews and appeals of reviews, so a small percentage of examinations are reviewed by three and sometimes four graders.

## **Anticipated Results**

The key aspect of the current project is the development of the query and analysis screens that will make it possible to view and analyze the data in multiple ways. The principal investigators believe that the data contain a rich variety of linguistic and translation information on both correct and incorrect translation solutions as evaluated by the ATA graders. Report screens will be designed to provide data that make it possible to address a variety of research topics and questions such as the following:

- Pass/fail rates and score ranges for each language pair and for the corpus as a whole and their relation to the following factors:
  - Inter-grader and intra-grader consistency and variability in discovering and assessing errors
  - Congruity in discovery of translation errors (i.e., the ratio of errors marked by both graders to those marked by only one of the two)
  - Congruity in the marking of severity and category of translation errors
  - The distribution of error types between transfer errors (mismatches in reproducing the source-text meaning in the target text) vs. mechanical errors (problems in producing correct target-language forms)
  - Types of disagreements between graders; determination whether disagreement occurs most frequently with specific types of errors
  - Correlations between inter-grader disagreement and overall score, normalized for number of errors and relative weights
  - Use/non-use of categories of errors (i.e., are there categories that are never used, never used in a particular language pair, or never used at a particular severity, vs. over-use, over-reliance on certain error categories)
  - Range of translations of terms of art considered acceptable by graders
  - Textual environments noticeably vulnerable to error
  - Frequency of various error types, possible variation of error type with various text types
  - Co-occurrence of certain types of translation errors with other types
  - Features of examinations lacking certain error types compared to examinations with such error types
  - Types of errors that are predictors of poor quality translations in general
  - Variability of grader behavior
- The possibility of identifying high-quality translations from a sample of the text, vs. the need to examine the passage as a whole, i.e., what features must be analyzed in order to have confidence that the sample is representative of the overall quality of the text
- Identification of markers of high translation quality in solutions to translation problems, and the correlation of these markers with other features of the translation

In order to achieve these results, the data query screens will provide selectors by year, language pair, passage, grader, score or score range, error type, error severity, etc. The various data query screens will be customized depending on the type of data to be selected. More significantly, the report screens will undergo the iterative design process in order to develop useful and meaningful data output. One key type of display will be the KeyWord In Context (KWIC) feature taken from corpus linguistics<sup>9</sup>; another will be a display of the source text that reflects the errors recorded in the set of corresponding target texts either by color coding, by text size, or by annotation, enabling discovery of patterns and trends in error occurrence and error marking.

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<sup>9</sup> The KWIC display, common in corpus linguistics, displays horizontal lines of text extracted from the various records, with the key word centered in the display, allowing examination of the various contexts in which the word appears.



## **Personnel**

The primary personnel expense will be a stipend for a graduate assistant in Computer Science, selected with the assistance of Dr. Ruoming Jin, a professor of Computer Science at Kent State University. Dr. Jin indicated that the work on this project would be appropriate material for an M.A. thesis in Computer Science.

In addition, the co-PIs are Dr. Geoffrey S. Koby, lead researcher, Kent State University, Dr. Gertrud Champe, independent scholar, and Dr. Isabel Lacruz, Kent State University, all of whom are translation studies experts. We expect to dedicate significant research hours to the project during the academic year (Dr. Koby and Dr. Lacruz will have three hours each of academic release time dedicated to this research), and to be paid on summer appointment during the two summers of the grant period. Our work will focus on the iterative analysis and development described above, but will also include the data entry and expert alignment of errors in the database, using examinations from 2006 in German to English, English to Spanish, and French to English.

## **Impact of the current project**

The major contribution of the current project is to provide the framework for developing a rich, searchable body of data. These data will be useful for **research** in the areas of translation, linguistics and psycholinguistics, **translation evaluation**, and **translation pedagogy**. The objective is to eventually make these data available to a large and diverse group of scholars and teachers.

## *Research*

Aside from fulfilling the original motivation of this project, namely, the description and improvement of translation grading, the database described here will provide ample material for extensive linguistic and psycholinguistic research by providing, for example:

- An important window to study the cognitive processes underlying translation through analysis of the different types of errors and the range of solutions to specific translation problems
- Examples for the study of semantic features of translations, such as the range of vocabulary considered acceptable vs. non-acceptable
- Examples for the study of syntactic features of translations, such as the adaptation or adjustment of syntax to target-language norms vs. preservation or imitation of source-language syntax, with resulting effects on the usability of translations

## *Translation evaluation*

Analysis of collocational data obtained using the query screens to be created and the database to be [partially] populated in this project can be used to work toward an understanding of the dynamics of translation and translation evaluation, consisting of:

- Fundamental insights into the relative frequencies of the types and severities of translation errors made and the extent of their variation by language pair
- Fundamental insight into the range and variety of acceptable translations of a given passage or of particular segments or types of translation problems
- Examples for the study of pragmatic features of translations, such as varying levels of success in recognizing source-language features that require a pragmatic or communicative translation vs. a more literal one
- Quantitative information about grader behavior that may require standardization and additional training

- Information on the effectiveness of the examination itself, and possibilities for designing more effective translation certification examinations
- Analysis of the translation process through the translation product by investigating what features of a text are difficult to translate

Answers to these questions will lead to improvements in the training of translation certification graders as well as to opportunities for enhanced quality control of graders by measuring inter-grader and intra-grader consistency.

### *Pedagogy*

At present, available evidence suggestive of possible changes in the translator training curriculum is largely anecdotal. Understanding gained through basic research as well as through consideration of the needs of professionalization may contribute to significant updating of translation pedagogy. The results of close analysis and classification of transfer errors by language will constitute the basis for designing effective teaching tools for translation as a complement to existing teaching material.

On another front, the co-PIs themselves report, on the basis of grading experience, that a significant cause of student and certification candidate error is a lack of awareness of even the most superficial aspects of a specialized field (such as finance or technology) and of current and historical events often called “knowledge of the world.” This lack of awareness results in mistranslations and omissions that severely affect the correctness, and thus the usefulness, of the target text. These findings, if documented among certification candidates by the results of research using the proposed database, could form the basis of proposals for curricular modification.

### **Evaluation and Dissemination**

The project’s success can be measured by:

- Successful creation of the database query and report screens and alignment of sentences and translation errors, as described, for each 2006 language pair selected for this project
- Presentation of papers and submission of articles relating to the initial data analysis.

We will set milestones for specific phases of the work and track completion.

The co-PIs will present papers on a variety of topics derived from the project, such as error markings, successful and unsuccessful translations, comparative analyses across language pairs, or database design, etc. We expect to submit papers to major Translation Studies conferences in the U.S. and abroad, particularly the conference of the American Translation and Interpreting Studies Association (ATISA) that will be held in spring of 2016. We will also propose that the 2016 ATISA conference be held at Kent State University with a topic focus on translation quality and assessment. If our proposal is accepted, we will request the use of institutional funds in partial support of the conference.

Upon completion of this project, the database structure will be complete and the database will be partially populated with a small subset of the data. At that point, we will apply for another, more extensive grant to provide funding for qualified graduate students and faculty in multiple languages to fully populate the database with the 25 language pairs. Once a more comprehensive set of data has been inputted into the database, it will be made accessible to qualified researchers in linguistics, computer science, translation studies, comparative literature, etc. Full Internet access will be facilitated by the setup of the database on a website using MySQL and PHP technology.



# Budget Form

OMB No 3136-0134  
Expires 7/31/2015

Applicant Institution: *Kent State University*

Project Director: *Geoff Koby*

Project Grant Period: *06/01/2014 through 08/31/2015*

[click for Budget Instructions](#)

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			06/01/2014- 05/31/2015		06/01/2015- 08/31/2015		NA	
<b>1. Salaries &amp; Wages</b>								
Project Director (Geoff Koby)	14.5% Summer = 3.625% Calendar Year	4%	\$3,706	4%	\$3,829			\$7,535
<b>Project Director (Geoff Koby) Match</b>	<b>12.5% Academic Year = 9.375% Calendar Year</b>	<b>9%</b>	<b>\$9,902</b>					<b>\$9,902</b>
Project Co-Director (Isabel Lacruz)	20% Summer = 5% Calendar Year	5%	\$3,702	5%	\$3,824			\$7,525
<b>Project Co-Director (Isabel Lacruz) Match</b>	<b>12.5% Academic Year = 9.375% Calendar Year</b>	<b>9%</b>	<b>\$7,170</b>					<b>\$7,170</b>
Graduate Assistant (TBA; 1)	50% Academic Year = 37.5% Calendar Year	38%	\$6,953					\$6,953
<b>2. Fringe Benefits</b>								
Project Director (Geoff Koby)		16%	\$593		\$613			\$1,206
<b>Project Director (Geoff Koby) Match</b>		<b>29%</b>	<b>\$2,872</b>					<b>\$2,872</b>
Project Co-Director (Isabel Lacruz)		16%	\$592		\$612			\$1,204
<b>Project Co-Director (Isabel Lacruz) Match</b>		<b>43%</b>	<b>\$3,083</b>					<b>\$3,083</b>
Graduate Assistant (TBA; 1)		27%	\$1,877					\$1,877
<b>3. Consultant Fees</b>								
Gertrud Champe	Lump Sum		\$4,000		\$4,000			\$8,000

<b>4. Travel</b>							
	Project Director to NEH Directors Meeting in DC		\$650				\$650
<b>5. Supplies &amp; Materials</b>							\$0
<b>6. Services</b>							\$0
<b>7. Other Costs</b>							
	GA Tuition	MA level, 9 credit hours	\$8,550				\$8,550
<b>8. Total Direct Costs</b>	<b>Per Year</b>		<b>\$53,649</b>		<b>\$12,877</b>		<b>\$0</b>
<b>9. Total Indirect Costs</b>							
	47.2% MTDC, DHHS, 6/1/2010	<b>Per Year</b>	\$21,287		\$6,078		\$0
<b>10. Total Project Costs</b>	(Direct and Indirect costs for entire project)						<b>\$93,890</b>
<b>11. Project Funding</b>	<b>a. Requested from NEH</b>					Outright:	\$59,996
						Federal Matching Funds:	\$0
						<b>TOTAL REQUESTED FROM NEH:</b>	<b>\$59,996</b>
	<b>b. Cost Sharing</b>					Applicant's Contributions:	\$33,894
						Third-Party Contributions:	\$0
						Project Income:	\$0
						Other Federal Agencies:	\$0
						<b>TOTAL COST SHARING:</b>	<b>\$33,894</b>
<b>12. Total Project Funding</b>							<b>\$93,890</b>

**Total Project Costs must be equal to Total Project Funding ---->** ( \$93,890 = \$93,890 ?)  
**Third-Party Contributions must be**

## Budget Narrative

### Project: Building a multilingual database of graded translation examinations

#### 1. SALARIES & WAGES

##### Senior Personnel:

Geoff Koby, project director, is requesting the equivalent of 14.5% Summer effort (3.625% calendar year) in the summers of 2014 and 2015. \$7,535 is requested to cover his salary. In addition, Dr. Koby will provide the equivalent of 12.5% academic year effort (9.375% calendar year) as a match. He will oversee all aspects of the project and be responsible for the analysis and associated data entry for the sample subset of language data (German and Dutch). Dr. Koby will use this sample data to test the data query and output screens for adequacy and appropriateness, note problems, and work with the graduate student programmer to revise existing screens and create additional ones to visualize the data in various ways. Dr. Koby will also attend the Project Directors meeting in Washington DC.

Isabel Lacruz, project co-director, is requesting the equivalent of 20.0% Summer effort (5% calendar year) in the summers of 2014 and 2015. \$7,525 is requested to cover her salary. In addition, Dr. Lacruz will provide the equivalent of 12.5% academic year effort (9.375% calendar year) as a match. She will be responsible for the analysis and associated data entry for the sample subset of language data (Spanish), and will use this sample data to test the data query and output screens for adequacy and appropriateness, note problems, and work with the graduate student programmer to revise existing screens and create additional ones to visualize the data in various ways.

##### Graduate Assistant:

One Graduate Assistant (TBA) in Computer Science will contribute 10 hours/week (50% academic year effort) to the proposed project as part of his/her duties. A total of \$6,953 is requested to cover 50% of the Graduate Student's academic year stipend.

#### 2. FRINGE BENEFITS:

Kent State University's fringe benefit rates are based on actual costs. The fringe benefit rate for faculty and summer appointments is 16% and includes retirement, worker's compensation and Medicare. Fringe benefits for faculty and Graduate Student academic year appointments vary by pay rate and classification and include retirement, worker's compensation, insurance and Medicare. Benefits have been budgeted in accordance with Kent State University policy.

#### 3. CONSULTANT FEES:

Dr. Gertrud Champe is an independent scholar who will serve as a co-director on the proposed project. She will be paid a flat fee of \$4,000 in Year 1 and \$4,000 in Year 2 for a total of \$8,000. Dr. Champe will be responsible for the analysis and associated data entry for the sample subset of language data (French and Russian). She will use this sample data to test the data query and output screens for adequacy and appropriateness, note problems, and work with the graduate student programmer to revise existing screens and create additional ones to visualize the data in various ways.

**4. TRAVEL:**

The project director will attend the one-day Project Directors meeting in Washington DC, and \$650 is requested to cover the necessary travel expenses.

**5. SUPPLIES & MATERIALS:**

None requested

**6. SERVICES:**

None requested

**7. OTHER COSTS:**

Tuition is requested for the Graduate Student on this project in accordance with Kent State University policy.

**8. TOTAL DIRECT COSTS:**

Based on the above justification, total project direct costs of \$43,500 are requested from NEH.

**9. INDIRECT COSTS:**

Kent State University's indirect cost rate for research is 47.2% Modified Total Direct Cost per DHHS negotiated agreement of 06/01/2010.



## DEPARTMENT OF HEALTH &amp; HUMAN SERVICES

Program Support Center  
Financial Management Service  
Division of Cost Allocation  
Central States Field Office

June 1, 2010

1301 Young Street  
Room 732  
Dallas, Texas 75202  
(214)-767-3264  
(214)-767-3264 FAX

Mr. Gregg S. Floyd  
Vice President - Finance/Administration  
Kent State University  
2nd Floor Library  
Kent, OH 44242-0001

Dear Mr. Floyd:

A copy of a facilities and administrative cost Rate Agreement is being faxed to you for signature. This Agreement reflects an understanding reached between your organization and a member of my staff concerning the rate(s) that may be used to support your claim for facilities and administrative costs on grants and contracts with the Federal Government.

Please have the agreement signed by an authorized representative of your organization and fax it to me, retaining a copy for your files. Our fax number is (214) 767-3264. We will reproduce and distribute the Agreement to the appropriate awarding organizations of the Federal Government for their use.

In addition, we are enclosing the component breakdown of the facilities and administrative cost rate(s) as agreed to by both parties. Please sign this form and fax it with the signed Rate Agreement.

A facilities and administrative cost proposal, together with supporting information, is required each year to substantiate claims made for facilities and administrative costs under grants and contracts awarded by the Federal Government. Thus, your next proposal based on actual costs for the fiscal year ending June 30, 2013 is due in our office by December 31, 2013.

Thank you for your cooperation.

Sincerely,

Henry Williams  
Director  
Division of Cost Allocation  
Central States Field Office

Enclosures

PLEASE SIGN AND RETURN THE ORIGINAL OF THE RATE AGREEMENT





**COLLEGES AND UNIVERSITIES RATE AGREEMENT**

DEPARTMENT OF HEALTH & HUMAN SERVICES  
 EIN: 1316402079A1

DATE: June 1, 2007  
 Program Support Center  
 Financial Management Service  
 Director of Cost Allocation  
 Central States Field Office

INSTITUTION:  
 Kent State University  
 2nd Floor Library  
 Kent

OH 44242-0001

FILING REF.: The preceding Agreement was dated November 27, 2007  
 1301 Young Street  
 Room 732  
 Dallas, Texas 75202  
 (214)-767-3264  
 (214)-767-3264 FAX

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

**SECTION I: FACILITIES AND ADMINISTRATIVE COST RATES\***

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

TYPE	EFFECTIVE PERIOD		RATE (%)	LOCATIONS	APPLICABLE TO
	PROM	TO			
PRED.	07/01/09	06/30/10	46.0	On Campus	Organized Research
PRED.	07/01/09	06/30/10	46.0	On Campus	Instruction
PRED.	07/01/10	06/30/14	47.2	On Campus	Organized Research
PRED.	07/01/10	06/30/14	47.2	On Campus	Instruction
PRED.	07/01/10	06/30/14	30.0	On Campus	OSA
PRED.	07/01/09	06/30/14	26.0	Off Campus	All Programs
PROV.	07/01/14	UNTIL AMENDED	Use same rates and conditions as those cited for fiscal year ending June 30, 2014.		

\*BASE:  
 Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract (regardless of the period covered by the subgrant or subcontract). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000.

INSTITUTION:  
Kent State University

AGREEMENT DATE: June 1, 2010

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SECTION II: SPECIAL REMARKS

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TREATMENT OF FRINGE BENEFITS:

Fringe benefits are specifically identified to each employee and are charged individually as direct costs. The directly claimed fringe benefits are listed below.

TREATMENT OF PAID ABSENCES:

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims for the costs of these paid absences are not made.

OFF-CAMPUS DEFINITION: For all activities performed in facilities not owned by the institution and to which rent is directly allocated to the project(s), the off-campus rate will apply. Grants or contracts will not be subject to more than one F&A cost rate. If more than 50% of a project is performed off-campus, the off-campus rate will apply to the entire project.

Equipment Definition -

Equipment means an article of nonexpendable, tangible personal property having a useful life of more than one year and an acquisition cost of \$2,500 or more per unit.

Fringe Benefits:

FICA	Worker's Compensation
Retirement	Unemployment Insurance
Life Insurance	Health Insurance
Parking & Recreation Center Fees	
Graduate Student Tuition Waiver	

INSTITUTION:  
Kent State University

AGREEMENT DATE: June 1, 2010

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-21 Circular, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:  
Kent State University

(INSTITUTION)

(SIGNATURE)

Gregg S. Floyd

(NAME)

Vice President Finance & Administration

(TITLE)

June 2, 2010

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

(SIGNATURE)

Henry Williams

(NAME)

DIRECTOR, DIVISION OF COST ALLOCATION-

(TITLE) CENTRAL STATES FIELD OFFICE

June 1, 2010

(DATE) 5088

HHS REPRESENTATIVE: Narendra B. Gandhi

Telephone: (214) 767-3230

**COMPONENTS OF PUBLISHED F&A COST RATE**

INSTITUTION: **Kent State University**  
 FY COVERED BY RATE: **JULY 1, 2010 through JUNE 30, 2014**  
 APPLICABLE TO: **ORGANIZED RESEARCH**

RATE COMPONENT:	<u>ON CAMPUS</u>	<u>OFF CAMPUS</u>
Building Depreciation	3.4	
Equipment Depreciation	5.0	
Interest	2.7	
Operation & Maintenance	9.1	
Library	1.0	
Administration	<u>26.0</u>	<u>26.0</u>
<b>TOTAL</b>	<u><u>47.2</u></u>	<u><u>26.0</u></u>

CONCURRENCE:

Kent State University  
 (Institution)

  
 (Signature)

Gregg S. Floyd  
 (Name)

Vice President Finance & Administration  
 (Title)

June 2, 2010  
 (Date)

## Biographies

### **Project: Building a multilingual database of graded translation examinations**

1. Dr. Geoffrey S. Koby – Kent State University, Modern & Classical Language Studies

Dr. Koby, an Associate Professor of German Translation, holds a Ph.D. in Germanic Linguistics from the University of Wisconsin. His published research focuses on translation assessment and evaluation, the translation process, and translation pedagogy. Two recent articles on the ATA certification examination appeared in *Translation & Interpreting* 5:1 (2013). In addition, he has translated articles and books, including the forthcoming *Einstein's Opponents: The Public Controversy Surrounding the Theory of Relativity During the 1920s* by Milena Wazeck. He founded the American Translation and Interpreting Studies Association (ATISA) in 2002 and served as its president from 2002-2010. He currently serves as chair of the American Translators Association Certification Committee.

2. Dr. Gertrud Champe – Independent scholar

Gertrud Champe taught graduate courses in the theory and practice of technical & scientific translation and scholarly translation at The University of Iowa from 1985 to 2000. Since then, she has conducted a private practice as a medical translator, translating monographs, textbooks, scholarly articles and industrial documents. She is a grader of German to English certification examinations in the ATA Certification Program and a member of the Certification Committee which administers the program.

3. Dr. Isabel Lacruz – Kent State University, Modern & Classical Language Studies

Dr. Lacruz is Assistant Professor of Spanish Translation. She received her Ph.D. in Experimental Psychology (Psycholinguistics) from Kent State University in 2005. Her research interests include psycholinguistic aspects of the processes of translation, editing, and post-editing. Her recent research involves the use of eye tracking methodologies to study the translation process.

## Data Management Plan

### Project: Building a multilingual database of graded translation examinations

**Expected data:** The current project will be executed with a small but representative subset of the full data set. Once completed, the database will store large amounts of linguistic data. We estimate that 3,250 examinations will be stored in the database upon initial entry of the first three years of data. Each record will have the following attached to or included in the database:

- A color scan of the handwritten translation examination file (at least 600 dpi; file sizes between 40-60 MB depending on page count) – this file must be edited to replace grader initials with a grader code before storage in the database, to maintain confidentiality
- A text file with the text produced by the candidate
- Discrete storage of each linguistic unit produced by the candidate (words and punctuation)
- Metadata about the examination (formal aspects, handwritten markings on source text, etc.)
- Metadata about the grader (language pair, grader code)
- A variable number of entries recording grader markings of errors with explicit links between the source and target segments, error types, error severities, and quality points
- Calculated fields with total scores and measures of average grades, etc.

During development, access to the database will be limited to the co-PIs, consultants, graduate assistants, other outside experts, and the American Translators Association (provider of the data) using secure logins. MySQL and PHP will be used as a platform for provided web-based access to all participants, with custom-designed data entry and analysis screens. The co-PIs will determine the maximum amount of running text that can be quoted in publications while still maintaining confidentiality.

In principle, most analysis and publication will use data in the aggregate, or focus on particular semantic or syntactic features and quote or list only brief excerpts from a larger number of examinations in order to show statistical or qualitative trends. In addition, the text files will be in a format amenable to corpus analysis using software such as WordSmith or similar tools. Because linguistic research requires intense analysis of individual words and phrases, qualified researchers will be granted full access to individual, non-aggregated, anonymized data.

**Period of data retention:** The data currently available is from the 2006, 2007, and 2008 testing years. The ATA holds the data for a five-year period before turning it over to Dr. Koby. Future project funding will determine how quickly the database is populated with the data. Additional data will become available each year, and will be entered as funding permits. Note that for this type of linguistic data, such a delay period is not relevant, as language and translation practice do not evolve extremely quickly. We expect that the data will be retained indefinitely, permitting longitudinal and comparative studies.

**Data formats and dissemination:** All of the data will be outputted to standard web screens as developed by the current project. We will also enable downloads of corresponding output in text files, graphic files, or delimited files as appropriate to the data type. All qualified researchers will have access to all data and metadata, including individual data records and aggregated data. Once the database has been populated

with the entire initial dataset, allowing further analysis, we will publish the key features of the database in relevant translation studies venues and on a webpage dedicated to the project. Access will be provided to all qualified researchers, defined as faculty members or graduate students at institutions of higher learning or research institutes. Such individuals will be required to provide their CV and institutional affiliation. Upon approval, qualified researchers will be granted full read and query access to the database website using a login and password.

Qualified researchers publishing articles or books using data from this project will agree to include acknowledgement of the source of data, and, as appropriate, a description of the methodology of the project. Such individuals will be required to submit papers to the project prior to publication for a review to ensure that institutional rules are complied with and that the source of data is acknowledged and described. .

**Data storage and preservation of access:** The database will be stored on server space leased from Kent State University Information Services, which provides dependable and regular backup of the data to a separate location. All parties will access the database through the Internet.

## **Letters**

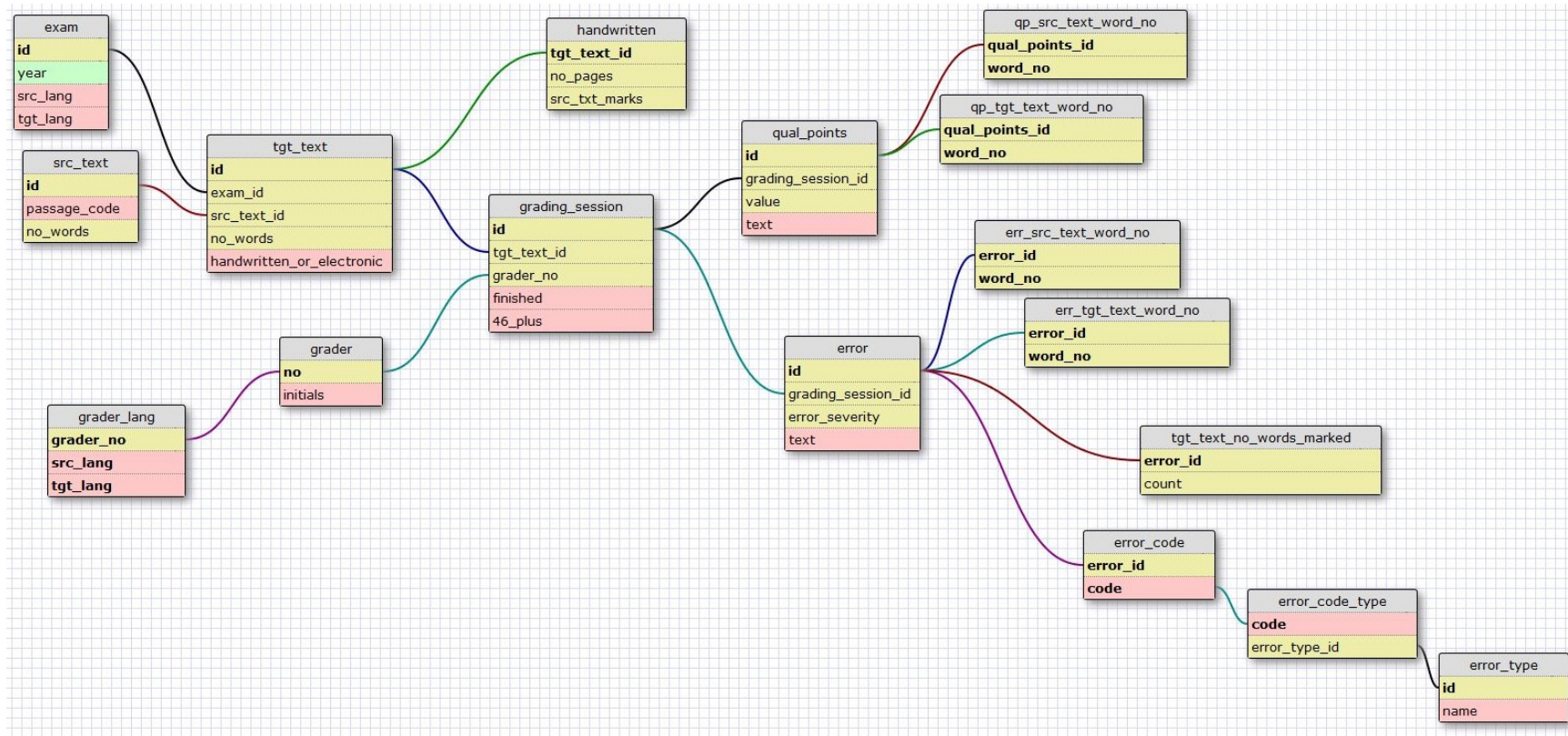
**Project: Building a multilingual database of graded translation examinations**

No letters of commitment or support are being submitted with this proposal.



## Project: Building a multilingual database of graded translation examinations

### Appendix 1: Current schematic design of database to store graded translation examinations, aligned by error



## Bibliography

### Project: Building a multilingual database of graded translation examinations

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