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研究課題名(和文) Development of a Second Generation Research Training Program for Language Teachers

研究課題名(英文) Development of a Second Generation Research Training Program for Language Teachers

研究代表者

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研究成果の概要(和文)：本研究では、共同学習を通じて外国語教員が貴重な研究手法と経験を習得できるようにする、第2世代のオンライン定量的研究手法トレーニングプログラムの開発・実施を目的としている。ビデオ会議アプリケーションを使用して32人のEFL教員がプログラムに参加した。プログラムに参加した教員はオンライン講義への参加、各参加者が担当する授業での調査研究、リーディング・ライティングの課題を完了、オンラインディスカッションへの貢献、そして執筆原稿のサポートを受ける機会を得た。本研究の成果には、国際会議での研究活動と結果の共有や、自主学習を希望するEFL教員のための別個の自己学習プログラムが含まれる。

研究成果の学術的意義や社会的意義

This project attempts to address a significant issue in the language teaching community in Japan; a lack of training and knowledge in quantitative research methods. The results include meaningful training of 32 language teachers and a set of materials available to guide future training programs.

研究成果の概要(英文)：The project's purpose was to develop and implement a second generation online quantitative research methods training program to help foreign language teachers in Japan gain valuable research skills and experience through collaborative learning. Following a review of the first-generation project, a one-year program was created that incorporates an online program coordination site, textbook-based curriculum, practical classroom research experience, and collaborative learning approach. Using a video meeting applications, 32 EFL teachers joined the program and had opportunities to participate in live lectures, conduct research in their classrooms, complete assignments, contribute to online discussions, and receive support on written manuscripts. Along with the training of the teachers, project achievements include sharing the project's activities and results at international conferences and a separate self-guided program for EFL teachers interested in independent study.

研究分野：外国語教育

キーワード：英語 外国語教育 外国語教師養成

1. 研究開始当初の背景

Knowledge and skills that are related to quantitative research methods and statistics provide numerous benefits for language teacher-researchers. With a strong foundation in these areas, they are better able to critically assess quantitative studies that they encounter in scholarly journals and presentations, understand the effectiveness of their own teaching by conducting quality research in their classrooms, and contribute to the language education field by sharing their research findings. Teacher-researchers who lack sufficient training may avoid the using the most appropriate design for a particular research question, conduct studies with major flaws, and improperly interpret research findings. However, many graduate programs for language teachers offer minimal coursework in quantitative methods. Avenues for supplementary training are limited and often out of reach for many working teachers in Japan due to geographical, financial, or scheduling restrictions. The researcher has been exploring an alternative approach to professional development that addresses the specific needs of language teachers working in Japan.

2. 研究の目的

The project's purpose was to develop and implement a second generation online quantitative research methods training program in order to help foreign language teacher-researchers in Japan gain valuable research skills and experience through collaborative learning. Building on previous work, this project attempted to improve on the original program, provide training to a large group of teachers in Japan, and create a stand-alone program that can be used by teachers looking to study independently. By promoting and fostering knowledge and skills in quantitative methods, there is potential to improve the quality of EFL research being conducted in Japan and ultimately lead to greater discoveries in the field, improved foreign language education, and more effective use of research resources.

3. 研究の方法

The plan for the project comprised of four phases: (1) development a full curriculum for a one-year collaborative training program in quantitative research methods, (2) promotion of the project and recruitment of teacher participants, (3) implementation of the one-year training program, and (4) development of a stand-alone version of the project and sharing of the project results. Each stage was intended to take roughly one year, but due to interruptions caused by the onset of the COVID-19 pandemic, the project was extended a total of three years. These extensions allowed more teacher participants to complete the practical experience component of the program, a more complete set of project results, and additional opportunities to share the findings of the project.

(1) Development of One-Year Training Program

During the first phase of the project, the two main components of the professional development training program were developed: the curriculum for the instruction on quantitative research methods and the plan for the practical experience through classroom-based research. The first step was a review of the plans and results of the first-generation project that was conducted from 2013 to 2015. Next, a literature review was conducted to explore 1) current practices in teaching statistics, 2) approaches to teaching quantitative research methods, and 3) strategies for distance learning programs.

This review informed the development of the following components of the program: the research methods textbook for the teachers, a curriculum for the instruction on core components of quantitative research methods and statistics, the design of a small-scale study for the practical experience component, a procedures guide for the small-scale study, various guides for participation in the training program, schedules for the year-long training period, and an online program coordination site. Although this initial preparation was completed during the first year of the project, revisions were made, and new materials were developed during the second and third phases of the project with input from the participating teachers.

(2) Promotion of the Project and Recruitment of Participants

The main task of the second phase was to promote the program among the community of language teachers in Japan, recruit interested teachers, provide a detailed overview of the commitments, and then finalize a list of teacher participants. This promotion and recruitment were primarily done at academic conferences and local events for language teachers in Japan. However, additional outreach took place through social networking sites and personal networks. Once teachers expressed initial interest, materials were provided through email or in person and any inquiries were responded to through email. A deadline was given by the end of January 2018 for interested teachers to make a commitment to join the program. Participating teachers were introduced to a program coordination site, completed introductory tasks, and provided critical information for project records.

(3) Direct Training of EFL Teachers in Japan

The main task of the third phase was to conduct the year-long training project with the group of language teachers in Japan who signed up for the program and to provide support once the training was completed. The main program schedule coincided with the 2018 academic school year. During the spring semester, four main activities of the program took place. These were 1) teachers worked together to finalize the procedures for the small-scale classroom research study they made up the practical experience of the program, 2) online lectures were given to instruct teachers on both the fundamentals of quantitative research methods and the procedures of the classroom study, 3) teachers each conducted the same quantitative study in their own classrooms, and 4) teachers used an online discussion forum to receive support for their research. During the 2018 fall semester, three main activities of the program took place. These were 1) guidance was given on the analysis of the data collected by the teachers in the spring semester, 2) lectures were given on quantitative methods, and 3) the teachers began writing their research reports.

The program was set up to have teachers complete their manuscripts by the end of 2018 which would allow them to publish in their own school's departmental journal; however, based on the experience with the first-generation project, it was expected that most would not reach this goal and support. Teachers were informed that they could continue to access the online program coordination site and contact the researcher directly for guidance throughout the 2019 school year. Opportunities for publication and presentation related to the individual studies and the larger project were shared with the participating teachers during this time. A critical component of the results of this project are published manuscripts by teachers involved in the training program. A final deadline of the start of the 2020 school year was set for the inclusion of these manuscripts in the preparation of the final report. However, the onset of the Covid-19 pandemic interfered with the progress of the final phase of the project, so teachers who missed this deadline were still able to submit published manuscripts to the researcher during the period the project was extended.

(4) Development of Stand-Alone Program

During the final phase of the project, the main tasks were to develop a stand-alone version of the training program and to review, compile, and report the results of the larger project. The goal of the stand-alone program was to allow teachers who were not able to participate in the main training program to work through a set of materials independently to complete adjusted versions of the curriculum on research methods and statistics with the support of a textbook and gain practical experience by conducting the small-scale study with the support of a procedures guide. By sharing about the goals, implementation, and results of the project, the researcher hoped to raise awareness of the importance of building research skill for language teachers and demonstrate an approach for doing so.

As mentioned above the onset of the Covid-19 pandemic interfered with progress on tasks during this phase of the project due to the time required for the researcher to prepare for and conduct emergency remote teaching and the cancellation and postponement of academic conferences. With project extensions, these tasks were completed. Results of the project were shared at multiple local and international conferences both online and face-to-face and a set of downloadable guides were prepared and shared at an international conference in the last extension year of the project.

4 . 研究成果

The results of this project primarily include the refinement of a unique approach to professional development for language teachers in the area of quantitative research knowledge and skills, the materials that outline the year-long training program, the training that was provided to language teachers in Japan, the stand-alone program for independent study, and the various publications related to the project that promoted the approach and shared the project results.

(1) Approach to Professional Development

A previous project explored an approach to professional development in conducting quantitative research that met the needs of language teachers in Japan. This approach emphasizes the importance of building a strong foundation in the fundamental concepts in quantitative methods including research design and statistical analysis. Teachers looking to get more involved with quantitative research need to focus first on learning the fundamentals and put aside more advanced methods and concepts until these have been mastered. As a part of this process, teachers should conduct small-scale studies in their own classrooms that center on basic research designs, short-term interventions, and limited data collection. Teachers should work to understand each step of the design, implementation, and analysis and view their research as primarily a professional development activity. Finally, by incorporating collaboration as a critical component to their professional development endeavors, teachers are more likely to complete these challenging tasks and gain from the unique contributions from collaborating teachers. The current project provided an additional example of how this approach can be applied to a full-scale training program.

(2) Collaborative Online Training Program

A key part of the first phase of the project was the development of the full training program which continues to exist in the materials and guides saved as digital files. These include the program schedule, online coordination site template, curricular goals, syllabus of readings, guides for participation, procedures guides, instructional materials, database templates, analysis guides, and model manuscript write-ups. These materials incorporate detailed descriptions of the main features of the program—an online coordination site, a textbook-based curriculum, a practical research experience, and collaborative learning.

Any teachers, researchers, or administrators can reach out to the principal investigator and request access to these materials. They can be reused with minor revisions to implement a replication of the same training program for a similar group of language teachers or adapted to fit a different population of participants, include a different practice experience study, or target more advanced topics in quantitative methods. It is also possible for a lead researcher to use these materials to guide a large-scale study.

(3) Training in Quantitative Methods

The third major achievement of this project was the training and guidance related to quantitative research methods that was delivered to foreign language teachers in Japan. During the second phase of the project related to promotion and recruitment, four separate oral presentations and one poster presentation were given to over 100 teacher participants. Along with recruitment for the project, the workshops covered the importance for language teachers to have a solid foundation of knowledge and skills in quantitative research methods, an overview of fundamental concepts in measurement, design, and analysis, and a set of recommended strategies for conducting small-scale studies as an approach to developing their knowledge and skills.

During the implementation of the year-long training program during the third phase of the project, thirty-two teachers received instruction and guidance through sixteen 90-minute live lessons, reading and writing assignments, interaction in an online discussion forum, and personal communication with the principal investigator. Beyond this direction instruction and guidance, teachers were also gaining experience as they worked to set up and execute the studies in their own classrooms, compile and organize the data they collected, use statistical applications to analyze their data, conduct literature reviews related to their studies, and write up their manuscripts for publications. Teachers were encouraged to engage with the instruction, assignments, and materials as much as their schedules allowed and emphasized that even limited participation would be beneficial. The level of involvement in the program activities (discussion forum, live instruction attendance, assignment completion, practical

research experience) varied among the participants. While there was some attrition, 28 teachers prepared and conducted the main intervention and data collection stage of the study at the center of the practical experience and 20 of those teachers have reported generating at least one manuscript based on their research.

(4) Stand-Alone Program

Based on the curriculum of the full-year guided training program, a separate self-guided program was developed for EFL teachers looking to work independently the learning materials and the practical research experience. The program materials include a main set of instructions that guide teachers through the program, a curriculum based on the readings from a textbook, a set of instructions for the practical experience including a procedures guide for the classroom research study, and guides for the data analysis and manuscript write-up. The availability of the program materials and the downloadable site file were introduced at two presentations international academic conferences and are available from the principal investigator upon request.

(5) Project-Related Publications and Presentations

While a key goal of the training program for the participating teachers was the production and publication of a standard research manuscript, involvement in the training program led to opportunities to different types of published work and different presentation opportunities as well. During the recruitment process, editors of the journal, *Extensive Reading in Japan* took interest in the training program because the study at the center of the training program compared different methods of extensive reading activity. This led to an invitation to introduce the program in their journal. The principal investigator and one of the participants each produced short articles describing their involvements in the training program. Following the completion of the yearlong training program, the participants of the program were invited to summarize their research findings in short reports. Fifteen participating teachers generated a total of thirteen short reports and along with an introduction, they became the focus of the one entire issue of the journal. Twelve teachers published full articles on their research studies in departmental journals or small journals based in Japan. One more article was written in collaboration with the principal investigator and four participating teachers about involvement and experiences with the training program. Each of these publications represent tangible products and practical experience related to the project. They are also points of contact for teachers, administrators, and researchers that might be interested in following the approach that guided the project to pursue professional development or research goals.

(6) Conclusion

While the Covid-19 pandemic significantly extended the period of the project, the bulk of the work was completed within the time-period of the original plan and the primary goals were achieved. The limitations of this report prevent a full accounting of all the activities and accomplishments related to the project, but a review of publications listed in the output will provide much more detail. The hours that were logged by the teachers involved in the direct instruction, classroom research, and manuscript writing are past experiences that can be used to build upon and hopefully lead to additional growth, improved instruction, and meaning contributions to the field. Additionally, the materials generated for the larger training program and the stand-alone program will be available for future projects in Japan. At the time of writing, the principal investigator is exploring opportunities to apply this approach in an international setting with language teachers in multiple countries.

5. 主な発表論文等

〔雑誌論文〕 計4件（うち査読付論文 3件/うち国際共著 1件/うちオープンアクセス 2件）

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2. 論文標題 Reflections and insights from experiences doing quantitative research.	5. 発行年 2020年
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掲載論文のDOI（デジタルオブジェクト識別子） 10.37546/JALTPCP2019-03	査読の有無 有
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2. 発表標題 Sharing Experience with Quantitative Research
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〔図書〕 計0件

〔産業財産権〕

〔その他〕

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6. 研究組織

	氏名 (ローマ字氏名) (研究者番号)	所属研究機関・部局・職 (機関番号)	備考
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7. 科研費を使用して開催した国際研究集会

〔国際研究集会〕 計0件

8. 本研究に関連して実施した国際共同研究の実施状況

共同研究相手国	相手方研究機関
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