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SECOND LANGUAGE STUDIES – A NEW DAWN

DUSTIN CROWTHER
University of Hawai‘i at Mānoa

To begin, the new Second Language Studies editorial team would like to thank you for joining us as we embark on a new era for the journal. We begin by expressing our gratitude to Dr. JD Brown, who for over 25 years served as editor and is now enjoying his retirement by continuing to be active on the publication front (e.g., Brown & Crowther, under contract; Brown & Grüter, 2020). A review of Dr. Brown’s 25 years as editor reveals the publication of a wide range of topics relevant to second language studies, spanning not only the theoretical and pedagogical, but also the local and global. More importantly, during these 25 years, Dr. Brown has provided graduate students, as well as faculty, a venue to gain valuable publication experience, with Second Language Studies serving as a venue for scholarly contributions ranging from needs analyses to scholarly papers to works-in-progress. As such, before discussing the journal’s path moving forward, we once again thank Dr. JD Brown for the 25 years he has dedicated to Second Language Studies.

LOOKING AHEAD

The primary objective of Second Language Studies remains the same as it was under Dr. Brown. That is to promote faculty and graduate student scholarship that reflects the graduate curriculum of the University of Hawai‘i at Mānoa’s Department of Second Language Studies. This curriculum emphasizes both applied and theoretical perspectives in the study of how additional languages are used, learnt, and taught across the globe. Administratively, one area we have chosen to expand moving forward is an increased graduate student presence on the editorial side of Second Language Studies, inclusive of both authorship and peer review. It is for this reason I am proud to use the pronoun we to capture the input of our current editorial board: Micah Mizukami, Thu Ha Nguyen, and Kristen Urada. We also acknowledge early input from Kendi Ho and Yu-Han Lin. Of course, the editorial opportunities we aim to provide graduate
students require the submission of manuscripts. As such we begin by considering this very question.

**WHAT TO SUBMIT TO SECOND LANGUAGE STUDIES?**

Traditionally, *Second Language Studies* has accepted what are commonly referred to as working papers. While definitions may vary slightly, generally a working paper serves as a means to share preliminary findings of research that will undergo further revision and expansion before being submitted for publication in a peer reviewed journal. As such, working papers are generally submitted by students, faculty, instructors, etc. of a particular institution for publication in a working paper journal published through that same institution. Or in our case, *Second Language Studies* generally accepts submissions from students, faculty, instructors, etc. affiliated with the Department of Second Language Studies at University of Hawai‘i at Mānoa. Working papers receive informal peer review to help submitting authors receive initial feedback on their work, which may in turn also help them further develop their research for publication in mainstream journals in the future.

As simple as the above description may seem, an ongoing concern, especially for graduate students, is to what extent producing a working paper will impact their chances for publication in a mainstream journal. I personally have wrestled with this concern both as an author and while serving on two working paper publication committees at two different institutions. For this reason, acquiring contributions for working paper publications can be extremely difficult. Despite this personal experience I do not have a clear answer to this dilemma. I have encountered a couple general suggestions:

- A working paper should at the very least be substantially revised before submission to a mainstream journal.
- A working paper should present preliminary data and analyses, with the likelihood of additional data and additional analyses to be added in subsequent versions.

For those who find the above suggestions a bit vague, I agree. For the first suggestion, it is not clear what it means for a paper to be “substantially revised”. For the second, there is a question as to what extent other sections of a working paper need to be revised (for example, literature review, methodology).
Despite having raised these concerns, I cannot yet present an answer. Instead, I have identified these existing concerns as a target for a future editorial (spring 2021?), with the hope to gain insight from editors of mainstream second language studies and applied linguistics journals. For now, we here at *Second Language Studies* can only highlight some of the work that we are interested in:

- in-progress research, which may consist of pilot data, or focus on an early stage of data collection;
- completed research that is not intended for submission to peer reviewed journals;
- scholarship directly relevant to Hawai‘i and the Asia-Pacific region that may not have a scholarly home elsewhere;
- needs analyses focused on language programs housed at the University of Hawai‘i and neighboring institutions;
- theoretical papers that address key issues in second language use, learning, and teaching. Such papers should be situated in existing literature (i.e., these are not simply opinion pieces); and
- reviews of second language studies textbooks, language learning textbooks, language teaching textbooks, language learning technology, language tests, etc.

The above list is not all inclusive, as we are open to all submissions relevant to second language studies. In general, the choice to submit a project as a working paper of course belongs to the authors, though our team is here to provide guidance and support as you ponder this decision.

**THE CURRENT ISSUE**

In our first issue, we are proud to present one conceptual overview, one empirical study, and a summary of recent graduate level work from the Department of Second Language Studies at the University of Hawai‘i at Mānoa.

Our first paper is provided by Phung, Choe, Diez-Ortega, Eguchi, Holden, Mendoza, and Nguyen, who introduce *Multi-‘ōlelo*, a new University of Hawai‘i funded initiative which aims to promote the dissemination of language related research through a range of accessible formats and across multiple languages. The authors provide a summary of how their initiative developed, where they currently stand, and their plans and objectives moving forward.
Crowther, Tigchelaar, Maloney, and Loewen is an extension of Loewen et al. (2019), published in Studies in Second Language Studies. Whereas Loewen et al. provided a quantitative analysis of SLS scholars' knowledge of key statistical concepts, Crowther et al. here interviewed 12 experienced SLS scholars regarding their personal experiences developing statistical knowledge and conducting quantitative analyses. In other words, Crowther et al. present a qualitative study looking into quantitative knowledge in SLS scholarship.

Urada provides a summary of milestone projects submitted by Department of Second Language Studies graduate students during the 2019/2020 academic year. More specifically, she provides a list of MA- and AGC-level scholarly papers and PhD-level dissertations. To highlight the range of work produced, a select number of these publications have been summarized.

We conclude our first issue with information regarding submission for our spring issue, targeted for May 2021. We again thank you for taking the time to read Second Language Studies and hope you enjoy our issue!

Sincerely,

Dustin Crowther
Micah Mizukami
Thu Ha Nguyen
Kristen Urada

REFERENCES
THE MULTIʻŌLELO INITIATIVE FOR LANGUAGE RESEARCH COMMUNICATIONS

HUY PHUNG, ANN TAI CHOE, MARIA DIEZ-ORTEGA, MASAKI EGUCHI, DANIEL HOLDEN, ANNA MENDOZA, AND THU HA NGUYEN

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ABSTRACT

Addressing the need for increasing the visibility and accessibility of language-related research for language teaching professionals and others interested in this research, particularly to address the widening gap between research and practice, Multiʻōlelo (MO) is a research communication project aiming to promote public engagement with language studies; thereby facilitating mutual understanding and support between researchers and various stakeholders such as language education professionals, language policy-makers, and language learners. In this concept paper, we will provide an overview of MO goals and activities, explain the rationales of the initiative, and document what we have accomplished so far, as well as provide a roadmap to realize our vision for a more democratic, participatory model of language research communication.

Keywords: research communication, open science, public engagement

Multiʻōlelo (MO) is a graduate student-led initiative for language research communication based in the Department of Second Language Studies at the University of Hawaiʻi at Mānoa. MO is a multilingual website curating language-related research findings in accessible formats such as text summaries, infographics, short videos and podcasts, in multiple languages. Therefore, MO encourages different forms of scholarship for public access and interaction for interested audiences (e.g., language teachers, undergraduate and graduate students and instructors, and policymakers) around the world. The word ‘Multiʻōlelo’ is a combination of the English prefix “multi” and the Hawaiian word “ʻōlelo” meaning voice, language, speech, utterance, statement and more. Aligning with recent initiatives in the language field, such as OASIS (https://oasis-database.org/), and bigger Open Science movements in science and academic research (Marsden,
2019; Marsden et al., 2019), the MO initiative aims to address issues of research accessibility, visibility and public engagement with science and academic research. Specifically, MO aims to carry out the following activities with both short-term and long-term action plans. In the short term, MO aims to create a platform for students, teachers, and researchers to communicate and share language research findings while allowing graduate students to learn about research communication and writing for the public. Long-term, MO aims to create a professional platform for language research communication where researchers can increase their research visibility if they choose to address research questions of wider relevance and communicate their findings in an accessible manner, while practitioners can obtain research-driven information for decision making. Practitioners include all individuals who make decisions based on language-related research to inform their practice, including, but not limited to teachers (e.g., speech language pathologists, testing specialists, content designers, counselors). One of the aims of MO is to make language research accountable to language teachers and other practitioners. MO activities revolve around the following targets (3 Es):

- **Enable**: MO focuses on creating a platform, sample contents, templates, guidelines, and workflow to facilitate a new community of practice on language research communication which connects researchers, educators, policy makers, students, and other stakeholders who share interests and are involved with language issues. Practitioners can also benefit from our podcasts and bite-sized Q&A sessions, in which academic jargons are explained in plain language.

- **Engage**: Beyond just a repository of summaries of research findings, MO caters to educators, policy makers, parents, and others as research consumers while aiming to engage them in learning about the research process, critically assessing research findings, and using research for their own ends. For example, language teacher educators may use MO resources in their course lectures or assignments in teacher training programs. Teachers, speech language pathologists, and language testing specialists can use MO contents to design activities for professional development at the workplace.

- **Evaluate**: MO plans to evaluate the impact of the initiative, keeping track of which resources are being used most actively and how they are being used, in order to adapt to the needs of audiences such as language educators, graduate students, and other
members of the public. We also aim to carry out research projects to investigate the impact of certain scholarship forms on research use and engagement to identify the optimal formats for these different uses.

BACKGROUND OF THE MULTIʻŌLELO INITIATIVE

Language Research Visibility and Accessibility

MO aims to address the issues of research visibility and accessibility. Visibility is concerned with making research available to those who would benefit from it most through reaching out to the public and practitioners, engaging with them, understanding their concerns and contexts, and being aware of different stakeholders within language studies. Accessibility mitigates financial, linguistic, and discourse barriers by making research available and understandable to a general audience. Both visibility and accessibility are interdependent as two sides of the same coin. Therefore, we intend to address them together.

Research findings are conventionally available to small circles of researchers and experts who have more privileged access to specialized journals and databases. Most prestigious journals require subscriptions; due to these costs, it is not a viable option for many practitioners if they are not affiliated with a higher education institution or subscribed organizations. This issue is already well documented in the field of language teaching, as many teachers do not have access to journals or receive institutional support (Borg, 2009; Sato & Loewen, 2019).

Even when articles are made public, they are usually written for other trained researchers who have received specialized training and technical knowledge to decipher them. In fact, when Plavén-Sigray et al. (2017) did a corpus study of 709,577 abstracts published between 1881 and 2015 from 123 scientific journals, they observed a 10% rise in scientific jargon (defined as “words which scientists frequently use in scientific texts, and not subject specific jargon”, p. 5) across a dozen STEM and social science fields. Readability indices revealed that research articles have become harder to read over time. Such findings carry important implications for language studies. For instance, if a teacher wants to know whether their language instruction practice is best informed by recent research, they may have to go through an excess of journal articles without the disciplinary knowledge to pick out the most credible ones. They may also need to spend efforts in advancing their schematic, linguistic, and discourse knowledge to understand
what is being discussed. To address this issue, publishers and organizations (e.g., in psychology) have recently started to publish easy-to-read abstracts along with the technical abstracts of research articles, indicating that lay structured abstracts are more likely readable than the conventional abstracts (e.g., Psychology; see Stricker et al., 2020). The idea of accessible summaries is relatively new to applied linguistics; one of the laudable initiatives in the language field is the creation of Open Accessible Summaries in Language Studies, or OASIS, in which article authors and their collaborators write open access one-page accessible summaries of their articles (Marsden et al., 2019). However, most of what has been put forward is still written in English and follows a research dissemination model which may not guarantee high engagement from those who should be informed. In addition, one can argue that an extra summary is not necessary because readers already have access to the abstracts.

Since the majority of academic research is published entirely in English, this creates barriers for international scholars and practitioners whose access to research in prestigious journals (as both consumers and producers) is mediated by English language brokers. These include peer reviewers who guide international scholars how to cite other works to frame their arguments—the reviewers having better access to the most current and popular theories due to geographic location (Flowerdew, 1999; Lillis & Curry, 2006). An accessible introduction to this literature can be provided by materials on the MO site, alleviating some of the reliance on these mediators and allowing for a more independent self-introduction to the material. Moreover, it is important to remember that international scholars themselves are already brokers of academic knowledge in their own contexts, liaising with non-academic stakeholders such as language policymakers, curriculum designers, educators, and parents. Thus, research on the effects of a major language policy change or curriculum change, as well as research on language acquisition or language use in society that would make the public aware whether that change is in the right direction, needs to be more quickly accessed by those who need it most, such as teachers of migrants, refugees, and speakers of stigmatized regional languages.

Research Engagement and Models of Research Communication

Even though some forms of research findings are made available through open access journals, lay abstracts, or plain summaries that may facilitate the accessibility of academic research, this does not guarantee that practitioners or lay people will engage with academic
research. For example, researchers have documented that language teachers show low engagement with research in the language field (Marsden & Kasprowicz, 2017). Specifically, Borg (2009) documented that only 15.6% of a total 505 teachers of English from 13 countries indicated that they read research on a regular basis. This number reflects a widening gap between researchers and teachers in terms of research engagement. The gap has been discussed widely in the area of language teaching (McKinley, 2019; Medgyes, 2017; Paran, 2017; Rose, 2019; Sato & Loewen, 2019). Beyond language teaching, researchers also identify the reasons for low engagement with research. For example, jargon can reduce research engagement even when it is defined in the article (Shulman et al., 2020).

Furthermore, a number of initiatives in making research accessible are rooted in the open science movement which may not embrace models suggested in the science communication literature. The assumption that “when research summaries are available, professionals will use them” is still a matter of debate. In science communication, scholars have warned against the one-way model of research dissemination known as ‘the deficit model’ (Cormick, 2019; Cortassa, 2016; Simis et al., 2016; Suldovsky, 2016). The deficit model assumes that the target audience lacks research-driven knowledge and researchers should keep them informed of their up-to-date findings. A recent report points out that the deficit model is “wrong” and suggests different strategies for different communication goals (National Academies of Sciences, 2016, p. 3). The report highlights that “people rarely make decisions based only on scientific information; they typically also take into account their own goals and needs, knowledge and skills, and values and beliefs” (p. 3). While the deficit model still plays some important role in research communication, a dialogue or participation model can be more inclusive for engaging the public by promoting mutual interaction between researchers and readers.

Research in science communication also provides practical ideas to make research more accessible. For example, Schwabish (2020) provides a multilayered approach to research communication with the inverted pyramid philosophy of sharing research findings. He points out that interaction between means of communication, audience targets, and complexity of information should be considered to achieve the optimal communication goals (also see Baron, 2010; Cormick, 2019). For example, researchers can reach a huge audience via social media to share their research findings, but the information should be simplified and linked to the original research. In a recent study comparing different types of abstracts, the researchers reported that
participants found plain summaries and video abstracts easier to understand and more enjoyable to view/read than graphical and conventional abstracts (Bredbenner & Simon, 2019). Therefore, MO provides an opportunity for readers to easily access academic articles through alternative forms of scholarship.

DEVELOPMENT AND OUTCOMES

Building knowledge of key issues in language research and science communication, MO focuses on prototyping a model of language research communication. The initiative aims to create a crowdsourced multilingual platform that curates language-related research findings in accessible formats via multiple languages and from multiple voices. After several rounds of informal discussion, we presented a proposal of concept at the college-wide graduate student conference to receive feedback and assess if graduate students and faculty were interested (Phung & Reinagel, 2018, see Appendix for Initial Prototype for MO). Subsequently, the proposal was submitted for a small grant to develop a prototype of the platform and test the idea in practice. The initiative was partially funded by the UH IDEAS SEED grants in Fall 2018 and Fall 2019. As a result, we formed a multilingual team consisting of members with various research interests and areas of expertise to pilot some ideas for testing development including creating sample text, infographic, and videographic summaries, as well as to create the website. In addition, we have engaged graduate students at UHM to voluntarily serve as reviewers for MO summaries. Our work was presented at local conferences and in-house meetings, receiving further feedback. We added social media channels (Facebook and Instagram) to reach out to people in other circles.

To date (July 2020), we have published 33 summaries in different languages and formats. There have been more than 7,000 views on the website with 1,500 unique visitors coming from 42 countries and territories. MO summaries have been downloaded 947 times, particularly the Q&A format which explained a field-specific concept (i.e., “translanguaging”) in simple language. After one year, we have had summaries in Vietnamese, Spanish, Mandarin Chinese, Italian, Japanese, and English. We also prototyped several mini-projects to standardize the workflow and document the process. As a result, we now have letter templates, a guideline for producing podcasts, a tutorial on making academic infographics, and extra-credit and assignment
templates for graduate courses. Additionally, several professors have already included extra-credit for students in their classes who submit to MO.

MULTIʻŌLELO FOR LEARNING, TEACHING, SHARING, AND CONNECTING

Academic research should not occur in a vacuum. MO breaks down academic silos by transforming lengthy research articles into bite-size formats (e.g., one-page text summaries, infographics, videographics, podcasts, and presentation slides) and in multiple languages, thereby holding the potential for encouraging productive, two-way communication amongst scholars, educators, policymakers, and students who are interested in language-related matters around the world. As a freely available online platform designed for a wide range of audiences, MO can be used for multiple purposes, including but not limited to learning, teaching, sharing, and connecting.

Learning

The fact that scientific texts are filled with jargon and becoming more difficult to read over time (Plavén-Sigray et al., 2017) creates unwanted barriers that may prevent or even demotivate language lovers from retrieving knowledge from the academic community. By delivering research findings in innovative formats that are easily accessible and digestible for a general audience, MO provides a gateway to education for those who are curious about language-related research but who might not necessarily have the budget and time to consume expensive, hard-to-read scholarly works. As we emphasize the importance of multilingualism and two-way communication, our contributors are encouraged to submit works that not only translate and dissect research articles from English into other languages but also the other way around. MO is a user-generated platform with diverse topics pertinent to language teaching and learning, language use and identity, and language policy as examples. As such, we hope to offer our audience an opportunity to gain valuable information which they will find practical and relevant to their own interests.
Teaching

Those of us who have taught content courses to undergraduate-level students in Second Language Studies or Applied Linguistics are well-aware of the fact that most students find reading empirical research articles extremely challenging or less than engaging. While BA instructors are responsible for presenting facts supported by empirical evidence, selecting appropriate materials that their students will find enjoyable to read is an infamous struggle. Most language-related journals and books are designed for readers with some experience and familiarity with the field, but teaching materials that are suitable for undergraduate-level students are rather limited. MO can be the solution to this issue. We ask our contributors to summarize research articles from peer-reviewed journals, and our pool of qualified reviewers in multiple languages ensure the accessibility and accuracy of the contributions. Therefore, aside from being a platform for learning and communication, the variety of bite-size content provided by MO’s contributors can be integrated into classroom teaching, making learning more pleasant and motivating for the students.

Sharing and Connecting

Besides sharing the works of others, researchers and graduate-level students associated with different institutions are highly encouraged to share their work on our platform by breaking down complex concepts raised in their own research, as long as their scholarly work has been published in a peer-reviewed journal or an edited volume book. In addition, MO can be a good head start for those who would like to contribute to the field but may not have had the opportunity to publish in a well-established journal. All contributions to MO are considered as a form of professional/community service. MO provides guidelines to contributors for how to add their works published on the platform to their CV. We also encourage our contributors to connect with scholars whose work they have enjoyed reading and whose work they would like to transform into an alternative format; to facilitate this, MO provides an email template that contributors can use to reach out to the original author(s). This is a perfect networking opportunity for these contributors to connect with scholars, as well as for scholars to connect with the general public.
ROADMAP FOR THE FUTURE OF MULTIʻŌLELO

In looking toward the immediate future, the MO team will begin by focusing on attainable goals in line with our mission statement. Our initial next step will be to identify and begin conversations with our intended audiences, as well as expand the scope of current collaborators. As we strongly believe that research communication should be accessible to the general public, we need to make a greater effort to network and make connections with those who would benefit most from our services. In order to carry out this mission, we intend to reach out to the local community, in particular, language teachers and administrators in other universities and community colleges of these islands via social media and in upcoming events, both social or professional. To support continued involvement, we have already drafted a template for submission instruction that instructors of language studies can adopt (or adapt) into their own syllabi, allowing them to support MO either directly or indirectly. Furthermore, to continue expanding our pool of potential contributors, we intend to draft additional sets of clear instructions for interested teachers (such as K-12) to contribute submissions, fostering their own professional learning.

Additionally, we intend to use existing connections with teachers and parents outside of the university setting to better understand how this platform can be useful to them, how these summaries are being understood, and what their interests are. We plan to gather this information using surveys and semi-structured interviews and focus groups. In this sense, outreach toward administrators and teachers in the Hawai‘i Department of Education (HIDOE) and private schools would be an invaluable resource in expanding the scope of this project and disseminating research findings to the Hawaiian and local community.

In order to keep the MO website relevant to our intended audience, our team will also have to become more diligent about the articles that we choose to host on the site. In addition, in having these discussions, we can explore how accessible the current summaries are for the intended audience as well. It’s possible that what the team has found to be appropriate in the language of the current existing summaries may not be as suitable for readers as originally thought.

Our next immediate step is to contact local professional associations, such as Hawai‘i TESOL and Hawai‘i Association of Language Teachers (HALT), to foster new collaborations with other professionals in our field and enhance the visibility of our project. Furthermore, we
are planning to reach out to graduate students and faculty from other universities in order to expand the scope of our research expertise and increase the number of submissions.

In addition to those first steps, as MO keeps creating accessible high-quality content that could also potentially be used as teaching materials, we believe that reaching out and connecting with other initiatives in the field of applied linguistics, such as OASIS, could be a beneficial reciprocal relationship. For instance, MO could transform English summaries into different multimodal formats (e.g., infographics, slide shows), or translate the summaries into different languages, both with the idea of disseminating language-related research and engaging a wider audience following the Creative Commons (CC) licenses\(^1\). Adopting the CC licenses allows the work to be freely shared, adapted, remixed, and repurposed without the need to seek permission from the original creators.

Other future plans with MO include becoming an interactive secure platform for language professionals to interact and keep track of their learning, an idea that resonates with sites like Blinkist (https://www.blinkist.com) or GetAbstract (https://www.getabstract.com/en). This idea will be further explored once we have a large database of users and content, with future projects including the designing self-organizing modules, lessons, or reading lists for users.

Finally, the MO team will continue its efforts to crowdsourced and create accessible summaries of language-related research in the multiple languages we currently share, but also other languages as well, while aiming to publish the research in multimodal formats. We hope that, by sharing our initiative with the community, we can empower teachers, students, and other stakeholders by engaging them in MO as readers, contributors, and reviewers.

**AUTHORS’ NOTE**

We would like to express our thanks to UH SEED IDEAS for partially funding our initiative. We are also grateful to our advisors for sharing their insights and valuable suggestions as we have worked on this project.

\(^1\) https://creativecommons.org
REFERENCES


Bredbenner, K., & Simon, S. M. (2019). Video abstracts and plain language summaries are more effective than graphical abstracts and published abstracts. *PLOS ONE, 14*(11), e0224697. https://doi.org/10.1371/journal.pone.0224697


https://doi.org/10.1016/S1060-3743(99)80116-7


https://doi.org/10.1002/9781405198431


https://doi.org/10.1111/lang.12337


APPENDIX

Initial Prototype for MO

- Each summary will be reviewed by another reader (proficient in the same language) in terms of accessibility (i.e., whether the readability of the summary is appropriate for a general audience) and accuracy with regards to the content, language, and format.
- The names of the authors and reviewers will be published for transparency and accountability.
- Students whose contribution has published on Multiʻōlelo’s website will receive extra credits from relevant courses at the discretion of their instructors.
- WordPress can be used as a platform to facilitate the process. Published works can be shared on social media platforms (e.g., Facebook, Instagram) for reaching a wider audience.
- Published works on social media platforms can get ‘social’ metrics (views, comments, interactions, feedback).
- A tagging system can be used to organize the published works for easier access and retrieval.

The quality of Multiʻōlelo works rely on peer review and crowd-sourced feedback/evaluation. Each work will be reviewed by a ‘competent reader’ before becoming published and scrutinized by other readers and community.
ABSTRACT

A methodological turn in applied linguistics has led to greater emphasis on improving quantitative practices in second language acquisition (SLA) research, in terms of both analyzing and reporting data. One area of interest has been the degree of statistical knowledge possessed by SLA researchers, which encompasses not only what SLA researchers are able to do when analyzing and interpreting data, but also how this knowledge develops. Previous studies have considered SLA researchers’ (at both faculty and graduate levels) self-perceptions of statistical knowledge and training, as measured through questionnaires, and actual statistical knowledge, as measured through discipline-specific test items. The current study builds upon such inquiry by engaging directly with 12 SLA researchers through a series of semi-structured interviews, with an emphasis on both personal experiences with conducting quantitative analyses and general perceptions of historical and contemporary training practices in SLA. Interviewees’ responses highlighted the use of collaboration in overcoming statistical difficulties, the complexities surrounding increased graduate training and the field-wide increase in advanced statistical techniques, and a wider need to consider methodological rigor from a more inclusive mixed-methods perspective.
The methodological turn in applied linguistics (Byrnes, 2013) has led to greater emphasis on methodological rigor in conducting empirical research. One specific sub-discipline of applied linguistics (see Hall et al., 2017) that has seen increased methodological scrutiny is that of second language acquisition (SLA; e.g., Norton & Ortega, 2000; Plonsky & Gass, 2011). Given the prevalence of quantitative methods in SLA research (Brown, 2004; Loewen & Gass, 2009), one highly relevant area of interest in this regard has been the existing statistical knowledge amongst SLA researchers. When referring to statistical knowledge here we draw upon both Gonulal (2020) and Loewen et al. (2019), whose own definitions drew from several earlier sources (e.g., Schield, 1999, 2004; Wallman, 1993). Specifically, Gonulal (2020) operationalized statistical knowledge as “the ability to a) choose correct statistical methods suitable for research questions, b) conduct statistical analyses properly, c) understand and interpret the results of statistical analyses, d) evaluate the soundness of statistical analyses, and e) report statistical results properly” (p. 5). In measuring SLA researchers’ statistical knowledge, previous studies have relied primarily on self-report survey-based data (e.g., Lazarton et al., 1987; Loewen et al., 2014) and, most recently, a practice-oriented Statistical Knowledge Test (SKT; Loewen et al., 2019). Gonulal (2020) also investigated doctoral students’ (i.e., researchers in training) statistical knowledge and satisfaction with their statistical training. The current study builds on this research by engaging directly with SLA researchers to understand how their personal experiences and practices might inform our overall understanding of SLA researchers’ statistical knowledge, in terms of past, present, and future growth.

BACKGROUND

The strength of quantitative research is in the ability to yield generalizable and synthesizable findings that advance theory and inform practice (this, of course, assumes the additional presence of strong research design and informative reporting). Yet, inappropriate, misapplied, and/or misinterpreted statistical analyses can threaten the epistemological integrity of SLA research (Loewen et al., 2019). Thus, it is not surprising that we have seen increased emphasis on statistical practices in SLA, including full volumes overviewsing statistical procedures (e.g., Larson-Hall, 2015; Plonsky, 2015) and article-based reviews of prior/current usage (e.g., Cunnings, 2012; Plonsky & Gonulal, 2015; Plonsky & Oswald, 2016). Research emphasizing the
usage of advanced statistical procedures has tended to overlook the degree of statistical knowledge possessed by SLA researchers, knowledge which is necessary if we are to see a reform in methodological practice across SLA, as called for in Plonsky (2014).

Previous research measuring statistical knowledge among SLA researchers considered both SLA professors and graduate students (Gonulal, 2020; Gonulal et al., 2017; Lazarton et al., 1987; Loewen et al., 2014), with findings drawn primarily from self-report data. For example, Lazarton et al. surveyed 121 members of the Teaching of English to Speakers of Other Languages (TESOL) organization, while Loewen et al. surveyed 157 SLA professors and 158 SLA graduate students. Comparing Loewen et al.’s replication study to Lazarton et al.’s initial survey, professors and graduate students indicated increased confidence for many basic and some advanced statistical concepts. Participants in Loewen et al. (2014) also rated the adequacy of their statistical training slightly higher than those in Lazarton et al. (1987). However, in terms of the number of statistics courses taken (mean = 2.3) and overall low confidence in interpreting advanced statistical analyses, little appeared to have changed in the nearly 30 years between surveys.

More recently, Gonulal et al. (2017) investigated graduate students’ perceptions of statistical knowledge development during semester-long, discipline-specific statistics courses. Their findings indicated perceived gains in knowledge regarding basic descriptive and common inferential statistics. However, participants reported limited gains in knowledge of advanced statistics. Gonulal (2020) also evaluated SLA doctoral students’ statistical knowledge using a statistics survey and interviewed a subsample of participants about their experiences in preparing to use and interpret statistics in SLA research. He conducted semi-structured interviews to gain insights into participants’ experience with statistics and their training in using statistical analyses. He found that interviewees were dissatisfied with their training in statistics because generally it was not discipline (i.e., SLA)-specific. They also reported that the training lacked opportunities to go beyond basic terminology and analyses and lacked opportunities for students to apply or practice reporting statistics. He reported that graduate students tended not to further their statistical knowledge using self-training. To summarize these inquiries, there appears to be limited confidence amongst SLA researchers and researchers-in-training in their ability to apply the advanced statistical procedures that are becoming more commonplace in SLA research (e.g.,
Plonsky 2015). However, as previously highlighted, these studies mainly relied on self-report data, and did not provide empirical measures of statistical knowledge.

**Statistical Knowledge Test**

To build upon the existing self-report data regarding SLA researchers’/graduate students’ statistical knowledge, Loewen et al. (2019) developed the *Statistical Knowledge Test* (SKT). The SKT is a 26-item multiple choice survey comprised of SLA-specific material intended to measure SLA researchers’ ability to understand basic statistical concepts and procedures, to select and interpret statistical analyses, and to critically evaluate statistical information and data-related claims. In total, 198 active SLA researchers from North America and Europe completed the SKT. Respondents averaged a score of 18/26 (or 69%; median = 77%), with questions related to identifying Type I/II errors, interpreting a box plot, and understanding the relationship between statistical coefficients, standard errors, and population parameters posing high difficulty. In survey responses, participants indicated a preference for internet-, textbook-, and colleague-based aid, as opposed to turning to statistical consultants or help centers. Respondents also reported a strong preference for conducting statistical analyses using SPSS (76%). Finally, respondents reported having taken, on average, 2.5 quantitative analysis or statistics courses.

These results are very comparable to those reported in Gonulal (2020), who evaluated doctoral students’ statistical literacy using a similar instrument. His participants averaged a score of 16/28 (57%) on a test of statistical knowledge. Like the practicing researchers in Loewen et al. (2019), he found that the researchers in training turned to the internet, textbooks, and colleagues when they needed statistical assistance, and that the participants had taken approximately 2 (M = 2.19, SD = 1.56) statistics courses. Taken together, these two studies suggested that statistical training practices in the field of SLA/applied linguistics were similar at the time Gonulal (2020) conducted his study and when more advanced career researchers surveyed in Loewen et al. (2019) received their training.

**THE CURRENT STUDY**

While the outside measures of statistical knowledge reported in Loewen et al. (2019) and Gonulal (2020) built upon prior self-report findings, the current study builds upon the SKT
findings by engaging directly with 12 SLA researchers through a series of semi-structured interviews. In essence, our interviews allowed us to place an emphasis on both SLA researchers’ personal experiences with conducting quantitative analyses and general perceptions of historical and contemporary training practices in the SLA field. Drawing on such experience allowed the interviewees to provide commentary on the current state of statistical knowledge likely not fully represented in the SKT, and also more in-depth than could be gleaned through self-report data. These interviews also allowed us to compare the perspectives of researchers who are currently practicing in applied linguistics with those of the doctoral students more recently enrolled in statistics courses that Gonulal (2020) interviewed. Our specific research questions were:

1. How do SLA researchers develop and maintain their statistical knowledge?
2. What are current researchers’ views on the type of training and statistical support that are available to SLA researchers?
3. What changes do researchers perceive about the knowledge and use of statistics in our field?

**METHODODOLOGY**

**Participants**

Twelve researchers working at research institutions participated in interviews. Three participants self-identified as primarily qualitative researchers, and nine self-identified as primarily quantitative researchers. In general, interviewees can be considered to be relatively senior members of the field (10/12 held a rank of either associate or full professor), and represented a range of SLA interests. We provide demographic information for the participants in Table 1.

**Interview Protocols**

We collected data through a series of semi-structured interviews. Two sets of interview questions were developed (and piloted) to elicit researchers’ opinions on the field’s current state of statistical knowledge: 11 questions targeted researchers who conducted primarily quantitative research (see Appendix A), and a modified set of 11 questions was developed for those who
engaged primarily in qualitative research (see Appendix B). Examples of interview questions included *Can you describe your personal development as a statistician within SLA research?*, *When facing statistical difficulties, what are some of the resources that you have relied upon for assistance?*, and *Could you walk us through the different types of training you have received on how to perform statistical analyses?* These two sets served as a guide, with interviewers given the freedom to allow the interviews to develop organically (i.e., asking follow-up questions when necessary; allowing interviewees the freedom to provide additional insight when relevant).

**Procedure**

Three members of the research team scheduled and conducted 20-minute, one-on-one interviews with participants either in-person or via videoconferencing platforms. Each interviewer audio-recorded and transcribed their interviews. A second member of the research team verified the transcription of each interview.

Table 1

*Demographic Information for Interview Participants*

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*Notes.* <sup>a</sup>Program director, non-profit research institution; <sup>b</sup>Identity and language learning, language testing.
Data Analysis

We analyzed interview transcripts using thematic analysis, where we identified themes that best exemplified patterns observed across interviews (Boyatzis, 1998). We specifically followed a dialogic perspective, where meaning was considered as co-constructed between interviewer and interviewee (Wortham, 2001). We then compared themes with findings from the SKT (Loewen et al., 2019) to better inform our interpretation of the results. All interviewees were provided an opportunity to review their comments for accuracy and anonymity.

FINDINGS

We now draw upon the insight of our 12 interviewees, with a range of 4-20 years at their current institutions ($M = 12.13, SD = 4.83$), and who have been active within the field of SLA for a substantial period of time. We present excerpts of interviews across three key interrelated themes: quantity of training, sources of knowledge, and field progression. To promote conciseness, ellipses (...) have been included in excerpts to remove repetitive or unrelated information.

Quantity of Training

Reflecting upon their experiences, the majority of the interviewees described their own statistical training as limited (as shown in Excerpts 1 and 2).

Excerpt 1
In my PhD program we did have one course on statistics. It was using a book though that did not use SPSS, it used some off-software that no one used outside of the statistics class. So I didn’t find that very helpful either, although we learned some of the concepts. (Interviewee 1, associate professor, quantitative research orientation)

Excerpt 2
I took one statistics course through the … college of education, and I did really well on that course, but then it was another year after that when I actually started
analyzing my data … I didn’t really remember any of the details about how to carry out these statistical tests. (Interviewee 5, professor, quantitative research orientation)

Maybe most telling is that multiple interviewees referred to the limitations of their statistical training leading to a sense of “flying/going by the seat of my pants” (Interviewee 4, Interviewee 7).

Sources of Knowledge

Since few interviewees had taken more than one or two statistical courses during their studies, much of their knowledge was self-developed through a number of different avenues (Excerpts 3 and 4).

Excerpt 3
Their stats PhD students had a requirement of sitting at this help desk for many hours every week and I met a student who was a dual degree in linguistics and statistics…So I sat with him for three hours a week and he would give me an assignment and I would go to the SPSS help desk and figure out how to carry out my assignment…I would bring the results back and he would teach me how to read them. (Interviewee 6, professor, quantitative research orientation)

Excerpt 4
I think you learn by doing in this field. People will tackle t-tests because they’re using them. You have that overview class where you learn like t-tests, ANOVAs, correlations but you don’t really learn it till you use it…I found my statistics knowledge lacking when I became a professor so I’ve gone to many workshops that are on a specific statistic that I want to use. (Interviewee 1, associate professor, quantitative research orientation)

Despite shortcomings in classroom-based training, it is clear that options are available to overcome limitations in statistical knowledge. While the above excerpts promoted methods of
continued knowledge growth by seeking one-on-one help or training in workshops, the interviewees also indicated preferred strategies when they encountered a statistical challenge. While the SKT indicated researchers tended to prioritize internet sources and textbooks, the interviewees were strong proponents of the use of statistical help centers and statisticians. (Excerpts 5 and 6).

*Excerpt 5*
I learned from courses but I have to say that I probably learned a lot more from working with statistical consultants through those years on specific projects. (Interviewee 3, associate professor, quantitative research orientation)

*Excerpt 6*
And I still do that with students here when I have like an MA thesis and they’re using something and I’m not quite sure if we did it right, we’ll make an appointment [with a statistical consultant] and go over our data, how we did it, and how we wrote it up and check with someone. (Interviewee 1, associate professor, quantitative research orientation)

Participants similarly indicated a reliance on colleagues when they encountered a difficult statistical question (Excerpt 7).

*Excerpt 7*
I guess I have colleagues, right, who I can bounce ideas off of. Less so here at the university than colleagues who are at other places, you know, I went to grad school with. (Interviewee 7, associate professor, quantitative research orientation)

In addition to the SKT indicating that researchers prioritized web- and text-based aid, the interviewees’ responses appeared to strongly emphasize a collaborative approach towards statistical analysis: interviewees described collaborating and consulting with colleagues, graduate students, statisticians, and attending workshops.
Field Progression

Regarding improvements in statistical knowledge in SLA over time, the interviewees appeared conflicted. As seen in excerpts 8 and 9, some perceived that there had been substantial growth both amongst researchers and training programs.

*Excerpt 8*
I think people are getting better at stats. Especially the PhD programs now are requiring more statistical coursework, the textbooks are better. (Interviewee 1, associate professor, quantitative research orientation)

*Excerpt 9*
I have to say that I’m really impressed with the younger generation. They come out knowing all kinds of stuff that, you know, sends my head spinning. (Interviewee 5, professor, quantitative research orientation)

In contrast, while recognizing an increase in training, there was a question of how beneficial such training had been (Excerpt 10).

*Excerpt 10*
I wish I could say students had more knowledge now...I think students would get it [a stats course], and in the end they might not know they should be thankful for it, but they would really benefit from it, So I don’t know. Yeah, I think it’s still an issue. (Interviewee 7, associate professor, quantitative research orientation)

A particular concern raised by several interviewees is the pace at which statistical advancements are being made and whether a proper understanding of the basics of statistical knowledge was being lost in the field’s haste for greater implementation of more sophisticated techniques (Excerpt 11).
Excerpt 11
I think we’re starting to run into the problem that in order to be a sophisticated consumer of some of the newer techniques...you need to understand the older techniques. So in essence we’ve increased the amount of information they need to learn and at the same time a lot of places are trying to shorten the time to degree. (Interviewee 12, associate professor, quantitative research orientation)

Additionally, interviewees raised the issue of disciplinary differences within SLA itself, with different theoretical foci leading to differences in statistical knowledge (Excerpts 12-13).

Excerpt 12
I think in certain areas they do [possess greater statistical literacy], you know, especially students who are working, you know, they’re doing psycholinguistics and they’re working with psychologists. (Interviewee 7, associate professor, quantitative research orientation)

Excerpt 13
I’m starting to wonder if our field isn’t starting to be driven too much by statistical innovations...we’re trained as linguists which means that we’re trained in qualitative analysis of how language works, right? (Interviewee 5, professor, quantitative research orientation)

Interviewee 5 (Excerpt 13) referenced the potential qualitative nature of SLA, which echoed certain commentary from the three qualitatively-orientated interviewees. Their responses underscored the importance of statistical literacy in order to fully engage with the range of scholarly work published within SLA (Excerpt 14).

Excerpt 14
I feel like I can’t really evaluate if I’m reading something where they’re providing the numbers, I can’t evaluate if they’ve done it well or not. (Interviewee 12, associate professor, quantitative research orientation)
The importance of possessing statistical knowledge is maybe best exemplified in Excerpt 15.

*Excerpt 15*
I also have the really hands on training as well that alerted me to some of the limitations of the statistical world. (Interviewee 9, professor, qualitative research orientation)

This researcher described how having received both quantitative and qualitative training, along with hands-on experience, informed their choice to primarily pursue qualitative approaches, while not disregarding the information that could be gleaned from a statistical approach. As shown in Excerpt 16, Interviewee 9 stressed the importance of understanding both strands.

*Excerpt 16*
Quantitative, qualitative, mixed methods and so forth of course even if you don’t use statistics in your own work, I mean you want to be able to understand, and you wanna cooperate in your studies where it makes sense right, where there’s a certain logic … of course it depends on what your interests are. (Interviewee 9, associate professor, quantitative research orientation)

In concert with Interviewee 9’s perspective, Interviewee 2 argued in Excerpt 17 that the necessity for greater statistical knowledge amongst qualitative researchers should be balanced with the need for qualitative literacy for quantitative researchers as well.

*Excerpt 17*
I don’t think that it’s just that the qual people are missing this quantitative advantage, I also think that the quantitative people could really stand to learn something from us and I think that too frequently there’s a misbalance between-an overemphasis on quant. (Interviewee 2, program director, qualitative research orientation)
Taken together, these final excerpts highlighted the need for appropriate training in both quantitative and qualitative research methods in order to be informed consumers of research in the diverse field of SLA.

**DISCUSSION**

We posed three research questions at the outset of our study:

1. How do SLA researchers develop and maintain their statistical knowledge?
2. What are current researchers’ views on the type of training and statistical support that are available to SLA researchers?
3. What changes do researchers perceive about the knowledge of statistics in our field?

In regards to developing and maintaining their statistical knowledge, interviewees viewed their statistical training as limited. This is in line with the findings of the SKT in Loewen et al. (2019), where 55% of respondents felt their training to be inadequate (only 11% felt their statistical training was adequate). One primary reason for this perceived inadequacy might be the general lack of statistical courses available (~2-3 courses; Loewen et al., 2019; Gonulal, 2020; Lazarton et al., 1987; Loewen et al., 2014), but two additional concerns were raised by the interviewees. First, interviewees raised concerns regarding the applicability of statistics courses to SLA research practice, specifically in regards to interacting with actual SLA data and using common programs such as SPSS. This same concern was echoed by participants interviewed by Gonulal (2020): one participant shared that there was a significant mismatch between the content of their statistics classes and their own research, and suggested that “SLA faculty need to offer more discipline-specific quantitative research methods courses to move the field forward” (p. 14). Promisingly, more recent SLA-oriented statistical volumes/textbooks have tended to include SLA data (Larson-Hall, 2015; Plonsky, 2015), with walkthrough guidelines often provided for both the commonly used SPSS and the increasingly used R programs. Another important consideration touched upon in this regard is the practicality of working directly with students’ own data when completing statistical courses. Of course, such alignment would require careful planning from program curriculum designers, but the ability to limit the time between training
and practical application would likely greatly benefit field-wide development in statistical knowledge (or help avoid the ‘by the seat of my pants’ feeling described by both Interviewees 4 and 7).

The second concern raised, and directly related to research question 3, is that the continued push towards more advanced analytical techniques (e.g., Plonsky, 2015) may in turn be creating greater limitations in the development of statistical knowledge. Given that the participants in the current study had the same mean number of statistics courses as more recent SLA graduate students (Gonulal, 2020), and that researchers are observing the use of more advanced statistical analyses, the burden of knowledge becomes even more intense. The concern is that rather than gaining a strong underlying knowledge of basic statistical procedures (e.g., ANOVA, correlations, t-tests), many of which underlie the processes of more advanced approaches (e.g., factor analysis, Loewen & Gonulal, 2015; structural equation modeling, Winke, 2014), students are learning how to run these more advanced procedures without the proper underlying knowledge to ensure that they are making appropriate decisions at each step of the analysis process. One promising note in this regard is that the current population of SLA researchers have at least shown a willingness to pursue statistical guidance from a range of resources. Respondents to the SKT in Loewen et al. (2019) and in Gonulal (2020) indicated a strong preference for internet- and textbook-based references, whereas the SLA researchers surveyed here indicated a willingness to gain advice from both their colleagues and statistical consultants. While the former indicates a degree of self-regulation in continued development in statistical knowledge, the latter shows a willingness to admit to shortcomings in statistical knowledge and take appropriate steps to address these shortcomings.

Though only touched upon briefly, it is important to note the insight provided by the three qualitatively-oriented researchers interviewed. When discussing a methodological turn, there is no reason that our emphasis should only be on quantitative practices. One of the participants shared that they felt underprepared to adequately evaluate quantitative studies, which is a concern echoed by one of the qualitatively-oriented doctoral students in Gonulal (2020): “I didn’t understand what their shortcomings were” (p. 15). However, another qualitative researcher in the current study had strong training in both quantitative and qualitative methods, which she said allowed her to better understand the limitations of quantitative research and take a more qualitative approach that can incorporate quantitative methods, if needed. Indeed, we have seen a
significant increase in mixed-methods approaches in applied linguistics research (Khany & Tazik, 2019; King & Mackey, 2016), with SLA-specific guidebooks now available (Brown 2014; Riazi, 2017). SLA research has seen little review of qualitative practices compared to the emphasis on quantitative practices (though many SLA journals have begun to include more diverse research guidelines; e.g., Mahboob et al., 2016). However, if the trend in the field is towards more mixed-methods usage, then it becomes imperative that we consider knowledge of both quantitative and qualitative methods and procedures, which encompasses making appropriate methodological decisions as well as ensuring appropriate reporting and interpretation of a wider range of data sources.

**LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

The current study aimed to extend previous SLA research into field-wide statistical knowledge beyond self-report and practice-oriented methods by considering the personal experiences and reflections of active SLA researchers. While highly informative, we note here the limitations of our inquiry. Specifically, we employed a purposive sampling that included primarily senior researchers working within the North American region. While such a sample provides important insight, it must be noted that important SLA research has been produced by researchers beyond this specific region. Much like Loewen et al. (2019) included SKT responses from European-based researchers, the personal reflections of researchers beyond North America must be considered in future research to gain a fully formed understanding of statistical knowledge in the field of SLA, as well as changes in graduate training practices across different regions. A final consideration is that since our purposive sample featured senior researchers, it can only provide an outside perspective on how statistical training at the graduate level has changed. As seen in Gonulal et al. (2017), graduate students report increased statistical knowledge in some domains more than others. More direct contact with graduate students, as well as recent graduates, would shed more light on both advancements in and limitations to statistical training at the graduate level.
CONCLUSION

Building on prior self-report data (Gonulal et al., 2017; Lazarton et al., 1987; Loewen et al., 2015) and Loewen et al’s (2019) SKT, we drew upon the personal experiences and reflections of experienced SLA researchers to extend the current understanding of statistical knowledge within the field of SLA. While acknowledging that some programs do indeed appear to provide adequate or improved training, there is still a need for many programs to reevaluate their approach towards increasing graduate students’ statistical knowledge. In this light, we make the following two recommendations for increasing statistical knowledge among SLA researchers. First, whenever possible, graduate students should receive statistical training within SLA-specific courses that allows them to engage with data relevant to SLA research. Ideally, this might include the opportunity for students to analyze their own second language data during a research methods or statistics course. Second, given the increased usage of advanced statistical techniques, the ~2.5 stats courses reported across studies may not be enough for students to acquire knowledge in both the core and advanced techniques needed to conduct and consume SLA research. Providing additional courses (or some degree of additional support) is highly encouraged. Our final recommendation is relevant to not only graduate student training, but also to experienced SLA researchers. We would suggest that both populations be made aware of and encouraged to take advantage of alternative methods of gaining statistical knowledge. Such methods include on/off campus resources (e.g., statistical consultation centers, websites, and forums), and also the increased statistical presence at SLA conferences (whether through pre/post-conference workshops or paper presentations). Of course, staying abreast of SLA-specific statistical literature (e.g., Plonsky, 2015) is a must, the increasing presence of which reinforces the field-wide importance of statistical knowledge within SLA research.
REFERENCES


APPENDIX A

List of 11 Guiding Quantitative Interview Questions

1. Can you describe your personal development as a statistician within SLA research?
2. What is different about you as a researcher (in regards to statistics) now versus when you first started?
3. Could you walk us through the different types of training you have received on how to perform statistical analysis? (this question likely depends on the depth provided in #2)
4. Could you share some of the difficulties you have faced while performing statistical analyses? This may include pre-analysis planning, data analyses and/or interpretation, reporting.
5. Could you share some of the experiences that you have had in grappling with difficult data and the how these situations were resolved, if indeed they were?
6. What have been some of the major accomplishments in your career in regards to statistics?
7. When facing difficulties, what are some of the resources that you have relied upon for assistance?
8. Could you share a little about your most recent statistical conundrum?
9. Could you describe some of the situations where you adopted new or less-familiar statistical analysis procedures in your research?
10. When you collaborate on a paper with colleagues or students, how do you go about negotiating what statistical procedure will be used, who will run the analyses, report the results, and conduct the interpretation?
11. What is your overall impression of the statistical knowledge of SLA researchers in general? What about specifically those who have entered the field as professors in the past five years?
APPENDIX B

List of 11 Guiding Qualitative Interview Questions

1. As someone that does not primarily use quantitative statistics in your research, could you share some of your background with statistics and SLA? (Training, experience working with others, perceptions, etc.)
2. What kinds of changes have you noticed between now and when you first began your career in SLA with regards to how researchers have adopted/utilized statistics in research?
3. Could you walk us through the different types of training you have received on how to perform statistical analysis?
4. How much of your work would you say is informed by research using quantitative/advanced statistical analysis?
5. How have you used statistics in your research?
6. Could you share anything about your habits with regards to consuming research that utilizes more quantitative methodologies? Specifically, with regard to statistics and their interpretation.
7. In the future, what do you see the relationship being between your work and quantitative statistics?
8. What are your thoughts on the level of training that Apprentice SLA researchers are receiving/receive in their programs? How or Where could it improve?
   a. What about the field of SLA as a whole?
9. In Hulstijn et al. 2014, Steven Talmy and Richard Young bring up the concept of ‘methodolatry’ or this seeming tendency to cling to one particular methodology in exclusion of other possibilities. The rest of the writers in the forum contend that collaboration is what is required to “bridge the gap” (if there is one) between cognitive and social approaches to SLA. Do you see this today? What are your thoughts?
10. In this same forum, Nick Ellis stated “Distrust any theory that claims that you can comprehensively study a component in isolation: syntax separate from lexis or semantics, form from function, representation from processing, diachronic from synchronic, knowledge from experience, behavior from brain, competence from usage, and so on (Ellis & Larsen-Freeman, 2006). Especially pertinent here is the social-cognitive gap. Such partitioning leads
to theoretical, ontological, and social isolation; self-aggrandizement; and autistic hostility.

Diversity is powerfully creative if there is chance of interaction.” What are your thoughts?

11. What are your thoughts on mixed methods research?
The following lists Masters-level and Advanced Graduate Certificate Scholarly Papers and Doctoral dissertations from the Department of Second Language Studies at the University of Hawaiʻi at Mānoa for the 2019 – 2020 academic school year. A select number of studies have been summarized, all of which are readily available via ScholarSpace at University of Hawaiʻi at Mānoa (https://scholarspace.manoa.hawaii.edu).

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<td>Summer 2020</td>
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<td>MA</td>
<td>“I Asked My Mom to Read It, She Told Me to Change Some Words”: The Influence of Identity on Students’ Writing Among Two HLL in a Filipino Language Course</td>
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This case study investigated how two Filipino heritage language learners’ writing development was influenced by their identities and background. Using data collected from retrospective interviews and students’ papers, the data showed that not only did their formal language training help them write, but also their literary sponsors, which included their classmates and family members in the Philippines. Aspects of their...
Filipino identity and backgrounds that influenced their writing were highlighted in the analysis, such as exposure to Filipino and living in the Philippines.

<table>
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<th>Griffin, Kathleen MA</th>
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<td>Hughes, RL MA</td>
<td><em>A Comparative Study of Two Vocabulary Activities for Indonesian Language Learners</em></td>
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<td>Summer 2020</td>
<td>Konno, Marcy MA</td>
<td><em>Methodological Perspectives: A Decade of Telecollaborative Studies in Intercultural Communicative Competence</em></td>
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</table>

This methodological synthesis of intercultural communicative competence in telecollaborative contexts reviews the primary research from 2010 to 2020. Results showed most studies focused on adults and university students, asynchronous contexts, intercultural development, and was done using mixed methods. From these findings, an expansion of participant backgrounds, better proficiency matching, and more multimodal contexts are called for.

| Summer 2020 | Tang, Shuai MA | *CELTA teacher training: Experienced Non-native English Speaker Teachers’ Perceptions Concerning Its Usefulness and Implementation* |

This study followed three non-native English CELTA alumni to learn how they are able to apply their training. From the semi-structured interviews, the participants highlighted the usefulness of CELTA’s hands-on teaching component, teaching strategies, and principles. However, the theoretical component was found to be less useful.
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<td>Summer</td>
<td>Haeusler, Angela</td>
<td>PhD</td>
<td><em>Making Waves: Anarcha-Feminist Encounters with Multilingualism in Hawaii</em></td>
</tr>
<tr>
<td>Spring</td>
<td>Baldwin, Jarrid</td>
<td>MA</td>
<td><em>Neepwaankiita Certificate Program: Language Teacher Training in the Miami Tribe</em></td>
</tr>
<tr>
<td>Spring</td>
<td>Newsham, Kiyoko</td>
<td>MA</td>
<td><em>Narratives of Transnational Adolescent Girls: Identity Constructions and Affiliation Formations</em></td>
</tr>
</tbody>
</table>

Using narrative analysis, this study contrasted two transnational Japanese adolescent girls’ identities and affiliations. While one participant embraced her Japanese heritage, culture, language, and strong family relationship, the other participant distanced herself from her Japanese heritage. These differences were attributed to the home environment and cultural exposure.

<table>
<thead>
<tr>
<th>Season</th>
<th>Student</th>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Spring</td>
<td>Park, Leeseul</td>
<td>MA</td>
<td><em>Newly-hired English Language Teachers’ Emotions</em></td>
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<tr>
<td>Spring</td>
<td>Steinmueller, Moe</td>
<td>MA</td>
<td><em>Evaluation of a Japanese Cloze Test as a Proficiency Task for Research Purposes</em></td>
</tr>
<tr>
<td>Spring</td>
<td>Tobias, Mie</td>
<td>MA</td>
<td><em>Corrective Feedback in an L2 Intensive Academic Writing Course</em></td>
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</table>
Using a mixed methods design, this study documented how the instructor provided feedback and explanations to students’ errors, noted what errors students made, and investigated how the feedback improved the students’ writing. Data collected from 14 English for Speakers of Other Languages students in a community college showed that not only did the feedback and revisions improve grammatical accuracy, but they also increased students’ self-confidence.

Spring 2020
Wang, Tian  MA Testing L2 Acquisition of Japanese Pseudo-clefts by L1 Chinese Learners

Spring 2020
Yamauchi, Shiori  MA Young Language Learners’ Motivation in Japan

This study took place in Okinawa, Japan and sought to not only learn about motivational differences among young learners, but also make recommendations to support their motivation to learn English. Using data gathered from questionnaires, observations, stimulated recall interviews, and semi-structured interviews from all stakeholders (students, parents, and teachers), the study suggested that an enjoyable classroom environment, parents’ support, and positivity towards learning English from teachers and parents are optimal for high motivation among the youth.

Spring 2020
Gatón Gabriel, Fatima  AGC The Role of Oral Correction in Spanish as a Foreign Language Students’ (De)motivation

As most demotivation research focused on students learning English, this study filled this gap by investigating the relationship of demotivation and oral feedback in Spanish
Based on data from observations and a post-observation questionnaire from four levels (Spanish 101, 102, 201, 202), positive feedback was preferred from students while feedback approaches that offered no solutions to the students’ mistakes were the least motivating.

<table>
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<th>Spring 2020</th>
<th>Nguyen, Hoa</th>
<th>AGC</th>
<th>Using a Bilingual Approach to Improve Vocabulary for Vietnamese Deaf Students in Grade 6 in the Center for Studying and Promoting Deaf Culture in Vietnam</th>
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<tbody>
<tr>
<td>Spring 2020</td>
<td>Hwang, Haerim</td>
<td>PhD</td>
<td>A Contrast between VP-Ellipsis and Gapping in English: L1 Acquisition, L2 Acquisition, and L2 Processing</td>
</tr>
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</table>

Hwang (2020) investigated the acquisition and processing of VP-Ellipses (VPE) and Gapping in English by L1-Korean L2ers of English and native speakers in a series of four studies. The main participants in this dissertation were children whose L1 was English and children whose L1 was Korean, but were learning English. Corpus data were used in the first study to determine the frequency of VPE and Gapping in children’s input. The remaining studies used a series of tasks (ex: acceptability judgement task, picture-sentence matching task, and a proficiency task) with the children to determine how each group contrasted these two grammatical forms. In the last study, adult learners were given a self-paced reading task and a proficiency task to determine how they processed Gapping sentences. While the corpus study showed insufficient input to acquire these forms, the tasks showed the age these children were able to contrast and interpret them. Furthermore, the adults in each group were able to
resolve verb gaps while processing Gapping sentences. These results lead to implications in terms of the learnability of these forms.

<table>
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<tr>
<th>Spring 2020</th>
<th>Mendoza, Anna</th>
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<th><em>A Linguistic Ethnography of Laissez Faire Translanguaging in Two High School English Classes</em></th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Zhou, Lin</td>
<td>PhD</td>
<td><em>Let’s Play a Game while Writing</em></td>
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<td>Fall 2019</td>
<td>Black, Leslie</td>
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<td><em>Analyzing the Uchi-Soto Construct in a Japanese Podcast</em></td>
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<td>Fall 2019</td>
<td>Cannizzo, Hayley</td>
<td>MA</td>
<td><em>Feminist Language Pedagogy: Development of Students’ Critical Consciousness and L2 Writing in an EAP Classroom</em></td>
</tr>
<tr>
<td>Fall 2019</td>
<td>Lin, Chen</td>
<td>MA</td>
<td><em>Getting Busy Doing Emotionality</em></td>
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<td>Fall 2019</td>
<td>Nishizawa, Hitoshi</td>
<td>MA</td>
<td>Situating Language Attitudes with L2 Speech Perception: Associations with Accentedness and Comprehensibility</td>
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<tr>
<td>Fall 2019</td>
<td>Tong, Rianne</td>
<td>MA</td>
<td>Hawaiʻi Nu Uchinanchu Yonsei Identity</td>
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<td>Fall 2019</td>
<td>Diez Ortega, Maria</td>
<td>AGC</td>
<td>Developing Intercultural Competence in the Foreign Language Classroom: An Action Research</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>Imai, Junko</td>
<td>PhD</td>
<td>L2 Learning-To-Write Through Writing Conferences: A Mixed Methods Research Study</td>
</tr>
</tbody>
</table>

This study used mixed methods to investigate the usefulness of writing conferences and interactions between the learner and tutor in an EAP context. By analyzing data from questionnaires, writing samples, video recordings, and interviews, this study suggested writing conferences lead to better performance in writing quality and are able to communicate their ideas and concerns through effective scaffolding by the tutor.
SECOND LANGUAGE STUDIES SUBMISSION GUIDELINES

Second Language Studies accepts a range of publication types, including (but not limited to):

- in-progress research, which may consist of pilot data, or focus on an early stage of data collection;
- scholarship directly relevant to Hawai‘i and the Asia-Pacific region that may not have a scholarly home elsewhere;
- needs analyses focused on language programs housed at the University of Hawai‘i and neighboring institutions;
- theoretical papers that address key issues in second language use, learning, and teaching; and
- reviews of second language studies textbooks, language learning textbooks, language teaching textbooks, language learning technology, language tests, etc.

In general, we are open to all submissions relevant to second language studies, and will accept submissions from all members of the University of Hawai‘i community.

All submissions will first be reviewed by the editorial board for appropriateness for the journal, and will then undergo a single blind review. The goal of Second Language Studies is not to reject submissions, but help authors to further develop their submission to meet our expectations of quality.

The next issue of Second Language Studies will be published in late spring 2021. The deadline to be considered for spring publication is March 31st, 2021. Submissions can be sent to Dr. Dustin Crowther at dcrowth@hawaii.edu. If you have any questions regarding our submission and review process, please do not hesitate to contact us. We look forward to receiving your contributions!
Mahalo Nui Loa