Please summarize the entire research, teaching, or science and technology R&D and management work process (To be completed by the employee)

I have joined this project for two months. As my specialty includes qualitative research in second language teaching and learning and teaching, I have focused on the qualitative investigation in interaction data and literature review in the field of second language acquisition for two studies. More descriptions of these studies and my contributions to these studies are in the following:

1. Serve as co-author of the paper entitled “An online adaptive learning environment for critical thinking-infused English literacy instruction”, which has been submitted to British Journal of Educational Technology (SSCI) and is currently under reviewing. This study empirically investigates the effectiveness of CT-infused adaptive English literacy instruction using a Moodle system. A one-group pretest-posttest design was employed to evaluate the effect of the treatment on students’ acquisition of critical thinking skills (CTS) and English literacy. A total of 83 students enrolled in two sections of a general studies course at a large university in Taiwan participated in the semester-long experiment. Adaptive learning was achieved through the use of an online Moodle system for (a) online grouping (based on pretest English literacy scores), (b) delivery of specifically designed adaptive learning materials for each group, and (c) provision of individualized feedback. CT-infused language activities based on social constructivist principles were designed for each level of adaptive instruction, while explicit instruction for fostering CTS was provided in
class and practiced in groups. Empirical results demonstrate that CT-enhanced adaptive English literacy instruction simultaneously improved students’ CTS and English literacy and that students’ online discussions developed towards higher levels of interaction. This paper illustrates an effective blended learning model for adaptive instruction and offers recommendations for designing CT-infused language learning activities which can successfully both foster CT and English literacy outcomes. My major contributions to this study include investigating social construction of knowledge among learners in asynchronous computer mediated communication activities through content analysis and enhancing literature review in teaching and learning English as a second/foreign language.

2. Provide help with the submission of the paper entitled “The Effects of Critical Thinking Enhanced EFL Instruction on English Language Proficiency and Critical Thinking Skills”, which has been submitted to Journal of Research in Education Sciences (TSSCI) and is currently under reviewing. Based on social constructivist principles, critical thinking (CT) promoting activities were designed for fostering student engagement while targeting language learning and CTS development. To evaluate the effectiveness of the designed intervention, a quasi-experimental project was conducted with participants from two freshman English classes at a large Taiwanese university. While experimental group learners engaged in CT-enhanced activities such as debates and argumentative essay writing with peer review, comparison group learners participated in activities such as group presentations and process writing that did not emphasize either implicit or explicit instruction of CTS. Overall, learners in the experimental group (CT-enhanced EFL instruction) demonstrated significant improvement in English proficiency as compared to the comparison group (standard EFL instruction). Although significant differences in discipline-specific CTS (i.e. for argumentative writing) were found between the two groups, this advantage did not transfer to discipline-neutral CTS (i.e. deductive reasoning tests). Thus, our results support the benefits of CT-enhanced language learning for boosting English language proficiency and critical writing skills. The work I have done includes revising the paper based on the literature of second/foreign language acquisition and the sociocultural theory, reorganizing the structure of the paper, and preparing Chinese abstract.

Apart from the aforementioned studies, I also worked on the abstract and introduction of a study about digital game-based learning to make it more concise.

二、研究或教學或科技研發與管理成效評估（由計畫主持人或單位主管填寫）

Please evaluate the performance of research, teaching or science and technology R&D and management Work: (To be completed by Project Investigator or Head of Department/Center)

(1) 是否達到延攬預期目標？

Has the expected goal of recruitment been achieved?

Insofar as the purpose of recruitment was for the promotion of NCKU as a top university through the publication of peer-reviewed articles, I believe that this goal has been achieved. Although the term of
employment was only two months, Dr. Hung was able to assist us on two articles which we have been submitted to top peer-reviewed journals in the field. The quality of these articles has been improved through Dr. Hung’s critical revision, experience, and knowledge relevant to the articles (particularly in terms of second language acquisition, constructivist theory for language learning, and qualitative research methods).

(2)研究或教學或科技研發與管理的方法、專業知識及進度如何？

What are the methods, professional knowledge, and progress of the research, teaching, or R&D and management work?

This position principally involved research and some management responsibilities related to paper writing. The requirements of the position included elements of research and writing methods including: preparation of literature review based upon critical evaluation of published papers and reports, selection and paraphrasing of materials pertinent to answering the research question, logically structuring and formatting the contents of a manuscript to adequately reflect the contributions of the study, conducting data analysis (primarily qualitative), interpretation of statistical results (including qualitative and quantitative), and composition of research conclusions, delineation of limitations and potential contributions from research studies. Professional knowledge related to this position included: second language acquisition theory (including expertise in the social constructivist model of second language learning), detailed knowledge of computer assisted language learning and synchronous and asynchronous computer-mediated communication, experience with qualitative data analysis methods, familiarity with 21st Century Skills (such as critical thinking), knowledge of top peer-reviewed journals in the field of educational technology, and knowledge of the article writing, uploading, and review process. In terms of research progress, Dr. Hung was expected to bring a rough research article to a point of completion and readiness for publication, with the assistance of our team of experts in statistics, graphic design, and research writing. She was responsible for providing a proposed research schedule with specific goals for the completion of elements of article writing, provision of daily updates of her progress, and holding regular meetings with research team members in order to facilitate collaboration and ensure the completion of the tasks. Finally, the papers would be proofed and uploaded by the deadline.

(3)受延攬人之研究或教學或科技研發與管理成果對該計畫(或貴單位)助益如何？

How have the research, teaching, or R&D and management results of the employed person given benefit to the project (or your unit)?

We expect that the work completed by Dr. Hung will result in papers being accepted (with or without a process of revision) to top peer-reviewed SSCI or TSSCI journals. As such, her work will contribute to the key performance indicators of our project (TUP) by increasing the exposure of our research into innovative teaching and learning for fostering 21st century skills and providing evidence of high-quality research by our unit, which will reflect on the quality of research for NCKU, resulting in greater recognition, domestically and globally. In particular, Dr. Hung’s work on the qualitative analysis of student online postings in terms of depth of interaction and resulting improvements in critical thinking skills has been a unique contribution to
one of our papers, and has provided a benefit to our research unit which few other members could have achieved.

(4) How has the employed person, during his or her term of employment, benefited your unit or the relevant domestic academic field?

Our collaboration has brought several benefits to our team, which will ultimately be translated to the domestic academic community. For example, her emphasis on second language acquisition theory has provided many critical insights into our work in fostering English as a 21st century skill for Taiwanese students. Her critical input, thorough analysis, and review of social constructivist theory for the description and explanation of the development of English literacy and oral communication skills have brought benefit to at least three papers undergoing revision by our research team. As well, her experience (particularly from her doctoral thesis, which used conversational analysis to evaluate synchronous computer-mediated communication) brought certain insights to our lab members which will finally result in research that is better planned, executed, and written up.

(5) Please describe the specific work performance, or the results of research, teaching, or R&D and management work:

As described above and in Dr. Hung’s summary, her work performance has been satisfactory in that she has met the goal of bringing two research papers to the stage of completion and readiness for submission to top SSCI and TSSCI journals. Furthermore, she was able to use the final week of her employment to assist on the begin stages of revising a research paper from an overly lengthy research report, contributing to the translation of the abstract and composition of an introduction. Dr. Hung was always on time, generally met the timeframe established for the completion of research and writing goals, collaborated effectively with other team members, and provided well thought-out and critical reflection when requested. Areas for improvement include remembering to maintain daily correspondence and organized research and meeting records. Overall, Dr. Hung’s performance meets the specific requirements and job description set forth before her hiring and will bring benefit to our research unit and the university at large.

(6) Will you continue hiring the employed person? □ Yes ■ No

※ This report form should be limited to 3-4 pages in principle.

※ This report form can be downloaded in http://scholar.lib.ncku.edu.tw/explain/