Use Online Journal Club Events to Train the Educational Research Literacy: Research and Development at ResearchIC

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Abstract The development of Graduate Research Students' research literacy (RL) requires intensive training in both the reading and writing of scientific literature. However, current approaches in many universities cannot well prepare these students to conduct advanced research. This paper describes the research and development of an educational initiative ResearchIC, which uses asynchronous online journal club events to teach research students in the field of education science on reading educational research literature. This initiative has a potential global impact on RL training by providing the platform and events as Open Educational Resources.

Keywords Research Literacy, Journal Club, Open Educational Resources

1. Introduction

Reading scholarly publications is analogous to inhaling for researchers, whereas writing them is analogous to exhaling. Before engaging in a scientific discussion on a topic, it is customarily necessary to read the relevant literature. Therefore, a researcher's ability to read scholarly material is crucial to their research productivity and career success. Academic journal reading frequently necessitates the highest level of adult literacy (Wallendorf, 2001), whereas the corresponding training opportunities at universities appear to be lacking.

This paper describes ResearchIC, a three-year research and development project supported by the JSPS Grant-in-Aid for Early Career Scientists (22K13755), which is potentially beneficial to researchers and research students in the education science community and beyond.

2. Research Activities

2.1 100 Researchers' Videos

One hundred educational researchers from around the globe will be invited to

videos. two 15-minute create Each researcher chooses an article from a peerreviewed journal that is either classic/must-read or is widely cited. In the first video, the researcher demonstrates how s/he reads and interprets the selected paper by recording their interaction with the article's interface. The second video features the researcher responding to three questions: What are your literature identification/inclusion strategies? What reading your frequently used strategies? How do you organize literature and knowledge as a researcher?

These videos will demonstrate the ontask behaviors of experienced researchers as they read journal articles and their skills/approaches for managing research literature in general.

2.2 ERLRT Scale

Educational Research Literature Reading Test (ERLRT) is a scale that measures an individual's ability to read educational research literature. There exist measures of adult literacy (Kirsch et al., 1993), research literacy (Beaudry & Miller, 2016), and educational research literacy (Shank & Brown, 2007; Groß Ophoff et al., 2015). However, it is necessary to develop a

scale that focuses on the research literacy of researchers as opposed to other frontline practitioners (e.g., nurses, psychiatry residents, social workers, chaplains, preservice teachers). In addition, existing educational research literacy scales do not provide instantaneous feedback and diagnostic functions that can inform respondents' next steps.

The ERLRT scale will be distributed to graduate research students in the field of education science in order to assess their current levels of reading comprehension in educational research.

2.3 Online Experiment

Between 2023 and 2024, 100 online journal club (OJC) events on ResearchIC.com will feature videos produced by researchers in the previous stage and invite graduate research students in education science to participate in these events. The changes of reading levels will be assessed using the ERLRT scale.

3. Development Activities

The project has developed an open access platform (https://researchic.com) that enables researchers and research students in the field of education science to organize and participate in OJC events to improve their scholarly reading habits and abilities.

The platform was created with Moodle and is hosted on a commercial shared hosting service provided by HawkHost with 1 GB of physical memory, unlimited MySQL and PostgreSQL disk space, and unlimited bandwidth. Using Acronis backup software, a 7-day rolling snapshot of all files, emails, and databases is executed.

The system was updated to Moodle version 4.0.2 (Build: 20220711) and the commercial Moodle theme "Maker" (produced by 3rdwavemedia.com) was applied. On this Moodle site, the OAuth 2 services of LinkedIn, Google, and Facebook have been enabled so that users can log in

using their existing accounts from these three sites.

The term of "course" has been replaced by "event" on the site through the "Language customisation" function on Moodle; each course is now a single OJC event hosted by one educational researcher, as shown on https://researchic.com/course/index.php?ca tegoryid=23.

On the Moodle site, the course templates plugin (https://moodle.org/plugins/local course templates) was installed. It allows an event template to be applied to all 100 OJC events on ResearchIC. Therefore, everything on a ResearchIC event page is standardized and unified, and researchers are not required to manage events.

By December 2022, 19 international educational researchers from 17 universities in 10 countries and regions have registered to host OJC events on ResearchIC.com. Educational researchers in Japan are strongly encouraged to join.

References

- Beaudry, J. S., & Miller, L. (2016). Research literacy: A primer for understanding and using research. Guilford Publications.
- Groß Ophoff, J., Schladitz, S., Leuders, J., Leuders, T., & Wirtz, M. A. (2015). Assessing the Development of Educational Research Literacy: The Effect of Courses on Research Methods in Studies of Educational Science. Peabody Journal of Education, 90(4), 560–573.
- Kirsch, I. S. (1993). Adult literacy in America: A first look at the results of the National Adult Literacy Survey. ERIC.
- Shank, G., & Brown, L. (2007). Exploring educational research literacy.
 Routledge.
- Wallendorf, M. (2001). Literally Literacy. Journal of Consumer Research, 27(4), 505–511.