JAIST Repository
https://dspace.jaist.ac.jp/

Title	ラーニングコモンズでのユーザー中心の問題ベースの学習:学界におけるユニークな学習教育学の探求
Author(s)	Mohammed Khalid, Alam
Citation	
Issue Date	2022-03
Type	Thesis or Dissertation
Text version	ETD
URL	http://hdl.handle.net/10119/17787
Rights	
Description	Supervisor:神田　陽治, 知識科学研究科, 博士

JAIST
JAPAN
ADVANCED INSTITUTE OF
SCIENCE AND TECHNOLOGY

Japan Advanced Institute of Science and Technology

Doctoral Dissertation

User-Centered Problem-Based Learning at Learning Commons: Exploration of a Unique Learning Pedagogy in Academia

Mohammed Khalid Alam

Supervisor: Youji Kohda

Graduate School of Knowledge Science
Japan Advanced Institute of Science and Technology
(Knowledge Science)

March, 2022

Abstract

Learning Commons and learning are inseparable. The twenty-first century digital technologies have challenged the library services and resources and as well as it has changed the user behavior due to its service use aspect. Users of academic libraries are now very technology efficient and network or Internet dependent for their learning and information needs. These Techie Gen users are demanding wider access to digital resources and expecting interactive spaces for learning. It has been noted that there is a growing trend among the learners as they are becoming habituated to study in groups outside of the classroom spaces. Therefore, libraries have adopted a user-centric approach due to its learning and resources. They are redesigning its spaces and resources and introducing learning commons (LC) to accommodate the twenty-first century learning behavior of the user students. It is a unique service from the library where librarians, commons staff, student tutoring staff collaborate and interact with users (for learning by teaching) for their coursework assignment, presentation, research, writing report, technical support, program on information literacy, faculty development, and so on. LC is a super hub for learning in academic libraries where problem-based learning (PBL) method supported learners can collaborate for self-responsible user-centered learning, group learning and informal learning for out of class course work problem solving. During group learning users` transformer role for knowledge sharing and acquisition has been determined as the confirm PBL cycle phase in LC. Thus, LC has created a unique user-centered learning (UCL) pedagogy in academia. The purpose of this thesis is to contribute to a better understanding of these consequences. It tries to explain the user learning in terms of how it relates to the PBL supported learning commons for creating an extensive and time-befitting user-centered learning environment.

Taking into account the above challenges, the main objective of the research is to develop an integrated theoretical model of user-centered learning at learning commons. For answering the research questions, the study reviewed literature on

major issues of learning and LC. We have conceptualized that LC supports problem-based learning (PBL) in an out of class space where knowledge sharing and acquisition plays a transformer role for solving learning issues of the learners and completing their learning.

For examining and exploring the outcome from a large research population, the study employed a quantitative research approach and took the survey design within its methodology. To reach the LC users at their convenience an online survey was conducted within Japan Advanced Institute of Science and Technology (JAIST), Kanazawa University and Nagoya University of Japan. Based on the PBL method, the survey was on LC use for learning, role of knowledge sharing and acquisition in group learning and out of class informal learning for course work problem solving. The study adopted Partial Least Squares – Structural Equation Modeling (PLS-SEM) method to analyze the survey data and to examine the variables and their interaction with the dependent variable. PLS-SEM employed a two-step model validation procedure, first examining and validating the measurement model and then testing the proposed theoretical structure, as stated in this technique. The results show that learning commons (LC) completely supports problem-based learning in an out of class space and it is one of the main learning methods in this space. User learners are pursuing their self-responsible learning and using the LC continuum of services. Users` knowledge sharing and acquisition plays a vital role for solving learning problems in the group learning process and it has been determined as a must PBL phase for LC. Lastly, the users showed a great interest in PBL based informal learning for solving their coursework learning problems. Finally, the study suggests that the learning commons of academic libraries should have to think about the PBL method in its environment for user-centered learning. They have to redesign its paces and services, and redefine the librarians, LC staff, tutoring staff role for user-centered learning (UCL) at LC based on the theoretical model and implications of the study.

Keywords: Learning Commons, Problem-Based Learning, Knowledge Sharing and Acquisition, User-Centered Learning, Continuum of Learning.