
Educational Opportunities for Stunting Prevention through Lesson Study (LS)

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ABSTRACT

The lesson study concept has been used in the field of general education. Currently, lesson study is a concern in the health sector, as there are health problems that can be prevented through education, especially adult education. This makes it important to properly manage lesson study in adult education, especially mothers of young children. The purpose of this article is to summarize previous studies from the literature on lesson study used as adult learning education by exploring applications that can be applied in educating adult learning. We searched for information using keyword such as: education, adrology, Lesson study application techniques, health promotion, and adult learning media and methods. We used Indonesia and English articles/books published between 1970-2019. 68 articles were reviewed and extracted to: (1) reveal the reasons for implementing lesson study, (2) identify the benefits of lesson study, (3) describe facilitators and barriers mapping and community education. The result include such things as: training sessions, communication and helath literature, but in-depth studies on the effectiveness of such initiatives in the health sector are lacking. Therefore, the health sector in implementing lesson study needs to analyse their need to learn, design the strategies used, implement and evaluate the lesson study system used. While further research is needed to find the best way to implement lesson study in the health sector that provides a founfation to prevent stunting.

Keywords: Educational, Stunting, Lesson Study (ALS), Health.

1. INTRODUCTION

One health problem that has not been resolved until now is stunting. The National Team for the Acceleration of Poverty Reduction [1] notes that there are several obstacles in the implementation of accelerated stunting prevention, namely: 1) Ineffective stunting prevention programs. 2) The coordination of the implementation of specific and sensitive nutrition interventions at all levels is not yet optimal, 3) Ineffective and inefficient allocation and utilization of resources and financial resources 4) Limited capacity and quality of programme implementation, limited number of health workers and lack of competence of officers in running the programme. 5) The lack of advocacy, campaigns and dissemination related to stunting and prevention efforts.

Intervention programmes through Supplementary Feeding (PMT) and nutritional supplements have not shown a significant impact, so programme effectiveness is difficult to measure[2].

Food shortage is not the main factor causing stunting, but ignorance about nutrition, parenting behaviour and hygiene are the dominant factors causing stunting [3]. In general, people do not realise the importance of nutrition during pregnancy and the first two years of life. The Minister of Health, quoted [4] explained that: "Women must increase their knowledge about nutrition, in order to prevent cases of stunting. Nutrition education programmes that have been conducted in the form of extension and counselling have not been effective. This is because the learning/counselling conducted by TPG is done in a monologue. Monologue learning does not involve the community directly in the learning process itself. Education of adults (mothers of toddlers) is very important. This is very possible, because adults are part of the community who will make strategic decisions in the family. Education aims to change the mindset of the community towards nutrition and health, so as to change the attitude of the community in preventing stunting.

Education or adult learning is specific. According to [5], adult learning is assumed that, the more mature the

learners are, the: 1) self-directed behaviour and mutual learning, 2) their learning orientation changes from material mastery to problem solving ability, 3) mastering the ability to carry out real life tasks, 4) requiring self-involvement in planning, implementing and evaluating learning (problem centred-orientation).

The planning of learning process can be done through lesson study. Lesson study has been developed in Japan since the early 1900s. Through this activity, teachers in Japan study learning through joint planning and observation which aims to motivate students to actively learn independently. In the 1970s, the Japanese government recognised the benefits of *konaikenshu* and has since encouraged schools to implement *konaikenshu* by providing financial support and incentives for schools that implement *konaikenshu* [6].

Lesson study not only helps learners discover their problems in learning, but also discover the problems faced by teachers in delivering the material [7]. The advantages of implementing lesson study in improving learning quality are: 1) Can be applied to all classes both school and community, 2) Encourage and help in overcoming problems in learning, 3) encourage students to be more active in a pleasant learning atmosphere, 4) Learners help each other in understanding the material, 5) encourage learners to think and work as well as possible [8].

Lesson study applied in adult learning has a positive impact, because collaborative learning fosters enthusiasm in learning because there is participant involvement in the learning process[9]. Lesson study has long been developed in Japan and proven to improve the quality of learning. In addition, lesson study can improve the health and competence of teachers[10]. Through the application of lesson study in adult learning, especially mothers of toddlers, it is assumed to have a positive effect not only for mothers of toddlers, but also for instructors (health workers and cadres). The purpose of this study is to find a nutrition education programme to prevent stunting for the community.

2. RESEARCH METHODS

Literature review

Lesson Study was identified by using electronic databases or browsing articles, journals, theses, dissertations and other research related to health and lesson study. The search was limited to English and Indonesian studies published from 1970 to 2019. In the literature search the author did not contact the publisher, only read, summarised and concluded the contents of the article or journal. The search was categorised using the keywords education, andragogy, Lesson Study, health promotion, media and adult learning methods. In searching for information using keywords: education,

andragogy, Lesson Study application techniques, health promotion, and adult learning media and methods[11].

Selection and Data Extraction Process

The title and abstract of each article and paper were independently screened in two ways. Articles were deemed less relevant so data extraction was done systematically. Most articles presented were theoretical or utilised case studies, grounded theory or ethno graphy methodologies.

3. RESULTS

The search strategy identified a total of 98 articles, 30 articles did not fulfil the research criteria, leaving 68 articles in this review, which were reviewed then data extracted to: (1) reveal reasons for implementing Lesson Study, (2) identify benefits of Lesson Study, (3) describe facilitators and barriers to using Lesson Study[12].

Reasons for using Lesson Study

Previous researchers suggested a number of reasons why an agency might consider implementing lesson study, including: to help prevent possible lack of knowledge in the health sector (e.g. prevention of malnutrition, stunting, undernutrition) to gain a greater competitive advantage, to improve public health, as a method of adult learning, continuous learning, to prevent low diffusion of knowledge of organisational departments, individuals, or other health partners, to coordinate with other agencies, to improve the quality of professional services especially in the health sector, and to assist health workers in handling health problems in the community. Although the specific reasons may vary from one agency to another, that lesson study can improve people's knowledge about personal, family and environmental health, and become a learning method for health workers in conducting counselling to the community in the field of health.

Solutions and Resources

Lesson Study Implementation in Formal Classroom

Lesson study is a model in the implementation of learning that consists of several stages Mulyana in (Sumar, 2009) mentioned there are four stages in conducting lesson study, namely: 1) Analysis stage (identification), 2) Planning Stage, 3) Implementation Stage, 4) Reflection Stage[13].

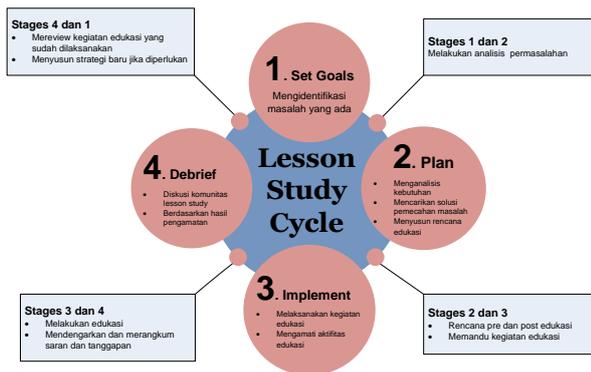


Figure 1. Lesson Study Stages

1. Analysis (identification) stage

Planning starts from setting learning objectives, analysing the needs and problems faced in providing education.

2. Planning Stage:

Getting around the lack of learning facilities, and collaboratively finding solutions in solving the problems faced by teachers in providing education in the classroom.

3. Implementation Stage

At this stage there are two activities, namely learning implementation activities carried out by one of the teachers agreed upon or at their own request to practice the lesson plan that has been prepared together and observation activities carried out by other teachers who act as observers.

4. Reflection Stage

This stage is conducted in the form of discussion followed by all lesson study participants guided by a facilitator. The discussion starts from the delivery of impressions felt during practising the lesson. Furthermore, all observers convey wise responses or suggestions to the learning process that has been implemented supported by evidence obtained from the observation results, not based on their own opinions. This is done as an effort to improve the learning process in the future.

Lesson Study Implementation in a Non-Formal Classroom

Lesson study has been conducted in a formal classroom by a group of teachers/lecturers. In the formal classroom, collaboration is only done in the teaching setting, to provide education to students and college students. Whereas in the informal classroom, it is conducted to a very heterogeneous community. The education is based on adult learning theory (Andragogy). Adults tend to learn with peers, learn based on daily life experiences, involve themselves in planning, preparing, implementing and evaluating their own learning

activities [14]. Therefore, the ability of the teachers themselves must also be improved, because teaching adults requires strategies and methods that are adapted to the abilities of adults. In addition, the limitations possessed by adults such as the ability to understand material, boredom, limited time available, must be a concern of the teacher in choosing methods, strategies and media used[15].

The application of lesson study in stunting prevention education is oriented towards improving the quality of non-formal learning. Modifications were made to the application of lesson study in this educational process. Modifications include the place of learning, learning time/duration, participants and teachers. The process carried out in each stage of the lesson study also underwent modifications, but was still carried out using the lesson study cycle. If in the implementation of lesson study in the classroom, the teaching community, ie. teachers/lecturers, plays a greater role, but in ALS, teachers and participants collaborate to achieve the learning objectives that have been set together. In ALS, the learners are mothers of stunted children under five and mothers of children under five with normal nutritional status. This is intended to fulfil the characteristics of adult learning, which tends to learn with peers. In ALS, the instructors are not teachers or lecturers, but health workers who are tasked with providing counselling to the community and posyandu cadres. This is because health workers and cadres in the government's health education and promotion programmes are nutrition extension workers and have a close relationship with mothers of children under five.

4. STUDY LIMITATIONS

The main limitation of this review is that most of the studies in English have been included in databases from the social sciences and humanities. Another shortcoming is the consistency of the study designs included in the review using different methodologies.

5. CONCLUSION

Strengthening the health system, especially at the district level is critical to meeting the MDGs and human resources are essential to achieve this, high quality care cannot be provided unless. The National Team for the Acceleration of Poverty Reduction notes that there are several obstacles in the implementation of accelerated stunting prevention, namely[16]: 1) Ineffective stunting prevention programmes, 2) The coordination of the implementation of specific and sensitive nutrition interventions at all levels, related to planning, implementation, monitoring and evaluation, 3) Ineffective and inefficient allocation and utilisation of resources and funds, 4) Limited capacity and quality of program implementers, limited number of health workers

who provide counseling to the community. In addition to the limited number of health workers, the government is also faced with the problem of the lack of competence of officers in running the program. 5) There is still a lack of advocacy, campaigns and dissemination related to stunting, and various prevention efforts. The limited implementation of nutrition intervention program has not shown a significant impact in preventing stunting and improving child nutrition. Several studies conducted in countries with high stunting prevalence, such as Peru, Vietnam, Indonesia and Bangladesh, recommend the importance of national campaigns to raise public awareness about stunting [17].

Therefore, stunting itself does not get an appropriate response, concrete evidence was found whether the implementation of lesson study is valued differently by cadres and this needs to be explored further. The advantages of lesson study implementation in improving learning quality are: 1) Can be applied to all classes both school and community, 2) Encouraging and helping in overcoming problems in learning, 3) encouraging learners to be more active in a pleasant learning atmosphere, 4) Learners help each other in understanding the material, 5) encourage learners to think and work as well as possible [18].

As a result, research in the health sector should remain a priority, a data collection tool, allowing more exploration of how lesson study affects stunting, as well as to allow comparison of contextual factors. This means that lesson study applied in the nutrition education process, is a collaborative effort between, cadres and the community, with the aim of improving the quality of nutrition education, which is carried out on an ongoing basis. In addition, lesson study is transitional and if possible future research should apply this education to make changes to increase understanding of knowledge and increase understanding of stunting prevention.

AUTHORS' CONTRIBUTIONS

The article writing team conducted article identification searches, writing and review analyses. Further identifying additional articles, analysis, weighting of articles and writing. Then the authors and team design the research, assist in drafting, revising and the finalisation. In addition, the authors supervised and revised the research, especially regarding the research methodology, assisted in revision, identified additional articles, evaluated articles and rearranged to the end.

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