

Julduz 7

by Juldus Paus

Submission date: 23-Dec-2022 03:47PM (UTC+0700)

Submission ID: 1986130924

File name: Paus_KI_Improving_soft_skills_and_hard_skills....pdf (1.94M)

Word count: 4192

Character count: 24754



TECHNIUM
SOCIAL SCIENCES JOURNAL

Vol. 37, 2022

**A new decade
for social changes**

www.techniumscience.com

ISSN 2668-7798



9 772668 779000

Improving soft skills and hard skills Wagra Learning Package C through the independent education curriculum in the Merdeka Belajar Scheme

Julduz Ruland Paus^{1*}, Mint Husen Raya Aditama² Meisie L. Mangantes³

^{1 2 3}Universitas Negeri Manado, Indonesia

julduzpaus@unima.ac.id

Abstract. Education is an important component of the life of any member of society. Studying in an educational institution alone is not enough to be successful. There are other supporting skills that can be acquired by the community besides formal education. This is the reason why independent education is an ideal concept in the Merdeka Belajar scheme. The purpose of this work is to learn and apply the principles of self-education that focus on improving the soft skills and hard skills of residents learning package c in the province of North Sulawesi. This goal is achieved through pedagogical experiments carried out at learning activity center institutions (SKB) and community learning activity centers (PKBM), through surveys of the needs of learning civil service practitioners and learning residents at different levels of education. Statistical data on the dynamics of self-education are analyzed through statistical and descriptive methods. The results of measuring the need for soft skills and hard skills found that factors of age, gender, and employment status influenced the choice and lack in improvement of soft skills and hard skills in independent education training. Factors such as leadership, determination, self-control and self-organization, work independence, and work skills became the main foundation in the preparation of the self-education curriculum of citizens learning package C. The factors contained in the self-education curriculum material affect the level of knowledge and increase educational motivation, social interaction and goals, show in the knowledge gained and help apply the approach to learning package C residents. This study shows that an independent education curriculum based on the needs of soft skills and hard skills must be carried out consistently and regularly by non-formal educational institutions. In supporting the Merdeka Belajar Program, the independent education curriculum prepared from this work can be used as a reference for separate education policies in formal education schemes.

Keywords. Learning Methods, Self-Education, Merdeka Belajar, Non-Formal Education, Soft Skill, Hard Skill

1. Introduction

Sustainable development has basic principles, one of which is lifelong learning [1]. A person obtains an education in Indonesia usually through formal education programs at primary, secondary and tertiary education institutions. the results of formal education sometimes do not always guarantee an expert to work effectively throughout his life after the educational process he experienced at formal educational institutions. Behind the rapid development of technology

today, it is not enough for someone to only be able to read, write, and have knowledge of certain issues to be successful. Technology has forced individuals to be able to adapt their abilities to changing times

Therefore, formal education institutions in Indonesia have special challenges in providing education and stimulus to their students so that they can adapt to face future challenges. These challenges include the use of learning strategies, learning media that optimize the role of non-formal education in this case the Learning Activity Center in the process of implementing independent education for students. The organizer of independent education who has an important role is the tutor of learning. Tutors of learning must be able to pay attention to the characteristics of students and their educational needs. Therefore, the tutor of learning must be able to increase his professional competence in his involvement in the independent education.

The problem of rules and laws on the principles of self-education in its status as special education has still not received attention, even though there have been many studies on self-education. The purpose of writing this article is to study the relationship between independent education (non-formal education) and formal education, namely its principles and consistency. Specifically writing this article to learn the following:

1. Finding out and promoting independent learning methods as a model for optimizing academic performance in non-formal education,
2. Finding out and promoting independent learning methods as a model for optimizing academic performance in non-formal education
3. Assessing the competence of independent education that has been carried out based on the perspectives of students and teachers, or learning residents and learning staff.
4. Building a relationship between non-formal education and formal education based on an independent learning model.
5. Analyzing the role of the principles of independent education in non-formal education
6. Studying the relationship between professional activity and self-education.

independent learning skills develop from the application of distance learning or online learning which has elements of learning videos, independent assignments, and evaluations aimed at assessing students' own knowledge [2]. The development of independent learning skills can occur through active and innovative learning methods such as research activities carried out by students [3]. In addition, technological developments that provide the latest information also play an important role in developing independent skills [2].

A person's expertise in carrying out his profession will be greatly supported by independent learning skills in the educational process. some research results [4], analyze how to have independent learning skills in higher education and also independent learning skills in community life. this shows that in obtaining independent learning skills there needs to be the involvement of formal and non-formal learning.

Independent learning skills provide the ability to conduct assessments and evaluations of the activities they carry out so that they have their own experience in planning, organizing, and engaging in independent learning. The development of independent learning skills requires an organizational platform that is regulated in educational institutions [5], which teaches students to work based on information [6] and certain situations. In addition, the ability to self-regulate needs to be developed because it is the main requirement of independent learning skills [7].

The results of previous research suggest that educators can create learning strategies that involve problems in everyday life and also by involving concrete media in the learning process so that they are able to provide independent learning skills for students [8].

Special education programs are made to involve students in independent learning, which include, among others, consultations, group discussions [8]. This stimulates students to learn independently and have these independent learning skills. Independent education provides several advantages including: increasing students' knowledge, being able to socialize with other students who have their own unique characteristics, so they are able to develop quality special abilities. A well-constructed learning process with a focus on developing self-educational competencies enables students to learn to adapt to changing conditions. the learning process is also able to develop students' critical thinking skills, and communication skills as well as collaboration skills with others [9] as the skills expected by students are 21st century skills.

The development of independent learning skills is also supported by technological developments required for competency assessment. The problem of self-education skills assessment involving technology is an important element [10], and is not limited to the development of knowledge and skills as well as affective, but also the ability to apply them in other situations.

The characteristics of independent learning competencies include having knowledge and being able to analyze the advantages and disadvantages of an activity, having critical thinking and problem solving skills, having the ability to plan independent education, having the ability to analyze information about opportunities, having digital literacy skills [11], having the ability to exploration, elaboration and connectivity or the ability to interact to increase professional abilities [12].

The development of independent learning competencies in each individual will be different from one another [12]. The development of independent education is more influenced by extrinsic motivation, but in professional activities it is influenced by intrinsic motivation. independent learning skills will be effectively carried out in the usual learning process [13]. However, it is believed that the learning process that is able to create independent learning skills is only possible outside of formal educational institutions [14]. the results of previous research [15], trying to develop a learning process that can stimulate and develop independent learning skills needed for independent education.

The results of previous studies have studied the role of self-education in various fields. Independent learning skills, responsibility, flexibility, cooperation, professionalism are the determining factors in the success of teacher training [4]. A professional teacher must be able to have independent learning skills, because with these skills the teacher is able to set an example for his students to learn throughout his life.

2. Methodology

The following principles of self-education are considered in this study: The integrity of soft-skills and hards-skills of citizens learning package-C, the model of application of self-education, the regularity of self-education, the consistency of self-education, the relationship between independent education in formal and non-formal education, and the relationship of independent education with professional activities (Table 1).

Table 1: Research methods for the application of the principles of bathing education

Principles of Self-education	Methodology
Methodological and sampling	Pedagogical experiments Self-Education Competency Assessment Questionnaire
Soft-skill and Hards-skill citizens learn package-C	Questionnaire for learning citizens Needs analysis according to learning assistants
Regularity	Questionnaire
Consistency	Questionnaire

The principles of self-education in relation to the improvement of Soft-skills and Hards-skills of citizens learning the C-package are learned through pedagogical experiments that include several stages:

1. Methods of measuring the needs of Soft-skills and Hards-skills of citizens learn C-packages that promote the development of skills and abilities necessary for independent education. Used to draw up a framework of methods in the concept of self-education.

2. The effect of the methods introduced on the academic performance of C-package learning citizens;

3. A survey was conducted on learning assistants and C-package learning citizens to assess the impact of self-education on motivation to learn, to ensure different approaches, changes in social interaction, and the development of skills and abilities necessary for self-education;

4. Independent education competencies (the purpose of obtaining knowledge and the need to improve existing knowledge, the ability to learn and complete tasks independently, as well as independently organize the learning process and exercise self-control) are assessed by learning residents and learning assistants of learning activity studios (SKB) and Community Learning Activity Centers (PKBM).

The questionnaire consists of closed questions that meet all the ethical standards and requirements used. These surveys are voluntary, anonymous, and free. The study was conducted over an academic year. The sample involved 112 residents learning package-C and 12 pamong learned from 8 SKB & PKBM representing each of the residencies in North Sulawesi Province, (Table 2)

Table 2: Sample description

	Number of Subjects	
	Citizen Learning Package-C	Pamong Belajar
Number of subjects	112	12
Age	17-45	26-60

3. Result

Measurement of the needs of Soft-skills and Hards-skills of C-package learning residents was carried out with a questionnaire. The results of the needs measurement are used as a reference in determining the needs-based self-education model. Table 3 presents the results of the analysis.

Table 3: Table of Soft-skill and Hards-skill needs

Kind Soft-skill	The value of Soft-skill and Hards-skills dominant in citizens' learning			
	Determination of Heart	Leadership	Discipline	Motivation
	4.6	4.5	4.4	4.4
Hard-skill	Employability Skills	Quality results	Mastery of technology	Independence
	8.6	8.4	8.2	8.1
Kind Sof Skill	Value Soft skills and Hard skills recommendations pamong belajar			
	Leadership	Motivation	Discipline	Responsibility
	5.1	4.6	4.3	4.3
Hard Skill	Employability skills	Independence	Academic ability	Mastery of technology
	10	9.7	8.8	8.4

As shown in Table 3, determination, leadership, discipline, and motivation have the highest percentage of C-package learning needs compared to other soft-skill aspects. The use of learning strategies and methods as well as technology-based learning media is a driving force and the formation and development of independent learning skills is more impactful if it contains strengthening of these soft-skill aspects.

A learning survey is carried out at the end of the process to build a relationship between the perspectives of students and teachers, also to find out the attitudes of students and teachers towards the self-education model, as well as to find out the advantages and disadvantages of using learning strategies and methods as well as technology-based learning media that form independent learning skills.

Table 4: Self-educational competence assessment result

Question	Answer Percentage	
	Student	Guru
Despite the various challenges faced, I will continue to try to complete my studies.	4.6	4.2
I have been entrusted by friends or others to lead, for example as a class president or other assignment.	4.5	5.1
I have a high enthusiasm for achieving high learning achievements.	4.4	4.6
I really need instructions on how to be on time e.g. completing tasks	4.4	4.3
If there is a task assigned by the teacher or someone else, I will definitely perform it responsibly.	3.9	4.3

Somehow important must understand the ability of hard skills:		
Employability skills	8.6	10
Quality results	8.4	8.6
Mastery of technology	8.2	8.4
Work independence	8.1	9.7
Academic ability	7.1	8.8

As shown in Table 4, the distinguishing needs between the survey and the teacher can be seen in the soft skills column, namely responsibility and hard skills. Where each has a not-so-far range of scores between 4.6 and 4.2 on the aspect of determination, as well as 3.9 and 4.3 on the aspect of responsibility. The difference in scores obtained is influenced by the perspective of each respondent. Data analysis from respondents of learning residents became the main reference, while respondents of learning pamong were used as supporting and strengthening data for surveys of soft-skill and hard-skill needs. Therefore, respondents filled out the questionnaire conducted by the learning staff just to give an idea of the needs of learning residents based on their perspectives. Thus, as illustrated in the results of the survey, the need that principles of independent education can be carried out for life (life long learning) if they have: consistency, regularity, the synergy between learning residents and learning civil servants, and a relationship with professional activities.

The preparation of an independent education model and the measurement of competencies resulting from independent education is necessary.

4. Discussion

The findings in this study are the principles of independent learning (consistency, regularity and the relationship between formal education and independent education) are required for a student in secondary education and higher education. Learning that is able to create independent learning skills needs to use innovative learning strategies and methods as well as technology-based media. By having these independent learning skills, students automatically shape their personalities in learning throughout their lives both in their profession and in society.

The findings of this study are supported by the results of previous studies involving 219 students in grades 8-9 where the results show that the use of digital technology in learning contributes to the improvement of independent learning skills [10]. Meanwhile, the results of other studies [3] show that the active learning method is not effective enough in developing independent learning skills. Therefore, there needs to be synergy between the use of learning methods and strategies as well as technology-based learning media in developing independent learning skills. creativity in combining some of these elements needs to be done by teachers in developing their professional abilities [16]

Creative teachers are more likely to engage in self-education through various forms of self-education, which makes them more successful than their peers. Most students learn independently through the content of learning materials on the internet [17] although some of them are directives from the teacher, not on the initiative of the students themselves. while a small number of students have the opinion that the internet has no contribution to their self-study skills. Meanwhile, a small number of graduates do not use the internet because they fail

to understand the relationship between independent learning skills and the professional activities they face.

Therefore, teachers should introduce opportunities for the use of information technology, including the benefits of the internet in learning some of the things needed in developing independent learning skills as well as developing students' own knowledge. There are several ways that teachers can take, namely providing material or explanations through videos, assignments and learning activities presented on the web or LMS, asking students to do online writing in doing their assignments. This will enable students to form independent learning skills by utilizing internet-based communication information technology. The results of research [4] show that the increase in the score of independent learning skills occurs during the learning process and will decrease when students graduate.

Therefore, teachers as educators must be able to be involved in the learning process that fosters independent learning skills that they can have and use throughout their lives in implementing their professionalism. The results of research [18] show that most of the respondents who have independent learning skills can be competitive in the industrial world or the world of work. However, in independent learning, various obstacles are obtained, namely the distance to the place of education and also the lack of time. Meanwhile, independent learning resources can be obtained through social networks, lectures (educational institutions), advanced training courses, various grant programs, online articles (scientific works) and online learning. While in formal education educators stimulate independent learning skills through the use of project-based learning models and case study learning models [15], as well as the learning model proposed by Shenben [20]. Furthermore, the characteristics of students needed in developing their independent learning skills are: motivation, discipline, responsibility, decision making, and adaptability skills quickly, as well as literacy and numeracy skills [4].

In the end, educators and students must have 21st century skills that support independent learning skills, namely creative thinking skills, critical thinking skills, communicative thinking skills, and collaborative thinking skills as well as computational thinking skills.

5. Conclusion

To what extent does education designed to meet the demands of life and carry out its professional duties as a tool in delivering a learning system can achieve and determine the quality of life of the community? The self-study system allows the whole community to be involved and participate in improving their skills and abilities, becoming specialists, and professionals in their respective fields. Self-study is urgent because progress is so rapid that the world needs skilled and specialized people for certain skills.

This study provides an introduction to the development of self-education skills that are applied to formal education through independent learning programs on independent campuses. Student performance at the independent campus is influenced by various independent learning activities. Things that need to be considered and adhered to in independent learning in independent campuses are the principles of independent learning skills, namely consistency, regularity and the relationship between independent learning activities and professional activities to develop independent learning skills. Independent learning activities such as social networking, lectures, advanced courses/training, various grant programs, scientific articles/literature studies (scientific works), and online learning can be a source of independent learning or as a means of developing self-study skills in the world of work or professional life.

This research is expected to be able to contribute to education scholars who have the task of developing students' independent learning skills and abilities. Further research that can be developed from this research focuses on the effectiveness of learning strategies and models that are able to develop students' independent learning skills in various fields and levels..

Authors' contributions

Author 1. Julduz Ruland Paus served as chief researcher in the 2022 DRTPM study. The chief researcher is in charge of supervising, evaluating, and directing each research division which includes: data analyst division, field division, research reporting division, research output division.

Author 2. Mint Husen Raya Aditama serves as the head of the research data analysis division and the creation of research outputs. Responsible to the chief researcher in the preparation of research instruments, analysis of research data, and making research outputs, including final reports and mandatory outputs, and additional outputs.

Author 3. Meisie Mangantes serves as the head of the field division, which is responsible to the head of research in terms of data collection in the field and the distribution of field data collection budgets.

Acknowledgments

This research was funded through the DRPM Fund grant for the fiscal year 2022 on the Higher Education Excellence Basic Research scheme. We would like to pass on our best comments to all readers who have been interested and use this article as a reference for your research.

Thank you to the editorial board of the Publications International Conference on Social Science 2022 (ICSS) for providing the opportunity for this article to be published. Thank you to the Dean, Chairman of LPPM, and Rector of Manado State University for providing support and guidance so that this article can be completed and published as our responsibility. There is no meaning to an idea and a discovery without usefulness and publication for the whole society.

Hopefully, this article can be a guide for all of us in applying aspects of behavior modification so as to create a more meaningful life and boil down to self-well-being. Sincerely, Author. Thanks.

References

- [1] Dawe, N., Romkey, L., Bilton, A., & Khan, R. (2021). A review of how lifelong learning is planned and enacted in Canadian engineering programs. Proceedings of the Canadian Engineering Education Association (CEEA) (Paper 168). Retrieved from <https://ojs.library.queensu.ca/index.php/PCEEA/article/view/14950>
- [2] Umarova Z. Modern and Innovative Approaches to the Organization of Students' Self-Education in Higher Educational Institutions. *Journal La Edusci* 2020;1:5–8. <https://doi.org/10.37899/journallaedusci.v1i4.223>.
- [3] Scherbakova T, Misirov D, Akopyan M, Ogannisyan L, Danchuk I. Technologies of active learning in the context of the risks of modern professional education. *E3S Web of Conferences*, vol. 273, EDP Sciences; 2021. <https://doi.org/10.1051/e3sconf/202127312025>.
- [4] Samuseviča A, Striguna S. The Development of Teachers' Pedagogical Competence in the Process of Self-education at the University. n.d.

- [5] D. Abdullayeva. Independent Education in Higher Education. International Conference on Multidisciplinary Research and Innovative Technologies, Academia Science; 2021, p. 217–20.
- [6] Cobern WW. The Lifelong Learning of Science. International Journal on Lifelong Education and Leadership 2015;1:1–10.
- [7] Kör H, Erbay H, Engin M, Aksoy H, Assoc A. Investigation of College Students' Capability of Self-Leadership *. vol. 4. 2018.
- [8] Razumova O v, Sadykova ER. Modern Journal of Language Teaching Methods n.d. <https://doi.org/10.26655/mjltm.2018.10.1>.
- [9] Guli I, Toirova, Abulova A, Zilola, Malika NFF, Zhurayeva O, Nafisa, Norova F. Application of Innovative Technologies in Teaching Process. International Journal of Psychosocial Rehabilitation 2020;24:386–90.
- [10] Efremova N, Shapovalova O, Huseynova A. Innovative technologies for the formation and assessment of competencies and skills in the XXI century. E3S Web of Conferences, vol. 210, EDP Sciences; 2020. <https://doi.org/10.1051/e3sconf/202021018021>.
- [11] Cattaneo AAP, Antonietti C, Rauseo M. How digitalised are vocational teachers? Assessing digital competence in vocational education and looking at its underlying factors. Comput Educ 2022;176. <https://doi.org/10.1016/j.compedu.2021.104358>.
- [12] Pidhirnyi O. preparation-of-future-teachers-of-physical-culture-for-self-educational-activity-as-a-psychological-and-pedagogical-problem. The Scientific Heritage 2020;48:47–50.
- [13] Pavlovyeh L. & Bilous I. self-education-of-students-in-the-conditions-of-higher-educational-institutions-and-its-motivation. Sciences of Europe 2020;51:16–24.
- [14] Mihai OI. Self-Education And Lifelong Learning. IJASOS- International E-Journal of Advances in Social Sciences 2021;7:142–5. <https://doi.org/https://doi.org/10.18769/ijasos.877846>.
- [15] Paranthaman A, Ayshwarya B, Livshits YA, Nguyen T, Hashim W, Shankar K, et al. Self-Education As A Condition Of Professional And Personal Development Of A Future Specialist 2019. <https://doi.org/10.14456/ITJEMAST.2020.13>.
- [16] Czaja-Chudyba I, Muchacka-Cymerman A, Sajdera J. Creativity And Professional Development Of Polish And American Teachers, 2018, p. 9649–59. <https://doi.org/10.21125/edulearn.2018.2311>.
- [17] Andrienko O. A. The Evolution Of Techniques And Principles Of Education In The East And The West. Purposes, Tasks And Values Of Education In Modern Conditions, 2018, p. 5–9.
- [18] Shynhof I. Professional Self-Development Of Language And Literature Teachers As Perceived By Postgraduate Pedagogical Education Courses Attendees. Designing an Individual Trajectory of Educator's Professional Development in the Context of the Concept of «Lifelong Learning», Primedia eLaunch LLC; 2021, p. 211–23. <https://doi.org/10.36074/d-obliplo.monograph-2021.08>.
- [19] Ansari JAN, Khan NA. Exploring the role of social media in collaborative learning the new domain of learning. Smart Learning Environments 2020;7. <https://doi.org/10.1186/s40561-020-00118-7>.
- [20] Jie D, Burlakova II. Formation of the Ability to Learn as a Necessary Condition for Self-Education of Students. 2019.

Julduz 7

ORIGINALITY REPORT

12%

SIMILARITY INDEX

11%

INTERNET SOURCES

0%

PUBLICATIONS

4%

STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

7%

★ jett.labosfor.com

Internet Source

Exclude quotes On

Exclude bibliography On

Exclude matches < 4 words