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Looking at the Self-innovation and Learning Models for the Internship Program Students during the Covid-19 Pandemic: A Qualitative Study

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Abstract

This research explored the impact of the Covid 19 pandemic on the ability of self-innovation and adjustment of learning models for students. It focused on the internship program at one education program, in a public university in Jambi. Based on the research problems and objectives, this research used a generic qualitative approach. It explored the structure of consciousness as experienced from the first-person point of view. The central system of an experience is its intentionality, which is directed at something because it is an experience or about some object. An experience is required for an object based on its content or meaning (representing the object) along with the appropriate enabling conditions.

Keywords

Covid-19, learning model, self-innovation, student internship

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Introduction

One of the policies imposed by the government in providing education during the Covid-19 pandemic is to close schools and campuses temporarily. Learning activities originally carried out face-to-face in schools have been replaced online distance learning methods from home. The impact of innovation during the Covid-19 pandemic is still considered to cause several problems. Students are at home, while student internships require face-to-face meetings at school. It is an obstacle and a challenge for students in developing distance learning innovations based on online applications.

Meanwhile, for parents, students, and lecturers who are unfamiliar with distance learning, the continuity of learning from home creates a new learning environment. New problems related to the implementation of learning emerged, such as limited Internet networks, limited mastery of technology, and parents' limitations in guiding their children due to limited knowledge. In addition, the interactive nature of distance learning is often not as good as face-to-face learning. Another problem is that students are hard to control. The attendance rate tends to decrease due to various factors, including discipline and control from a less-than-ideal environment (Crawford et al., 2020). Whereas in the learning process in the classroom, five important components constitute a unified learning environment: objectives, educators, students, materials, and evaluation. Educators or lecturers are active promoters of capable learning in these five components. However, if it can encourage students to achieve the specified learning objectives, then it is effective. Some problems in the learning process can be overcome, and new solutions can be generated by applying the importance of innovative learning strategies that can improve students' creative skills.

The changes, especially in significant learning activities during the Covid-19 pandemic, brought new issues to the learning paradigm. This change requires a rapid and high level of adaptation to bring about these changes more than before. Creativity, innovation, communication, and collaboration are deep considerations that can bring about change for the better. Learning innovation aims to assist lecturers and students in implementing a quality learning process to achieve effective learning objectives. Therefore, it is necessary to explore student learning innovation in an internship program at the Education Administration Study Program during the Covid-19 pandemic based on a simple description, namely, which learning innovations are effective and efficient during the Covid-19 pandemic.

However, some limitations often occur to university students, for example, low student response and resources and socially disadvantaged students where limited access to technology and the Internet impacts on organizational responsiveness or the limited ability of students to engage in online environments (Apresian, 2020). Many students question whether higher education is prepared for the coming era of digital learning (Houlden & Veletsianos, 2020). This research explored the impact of the pandemic on the ability of self-innovation and adjustment of learning models among students. Additionally, this research focused on the internship program at one education program, in a public university in Jambi.

Literature Review

The concept of innovation in learning

In general, innovation is the introduction of new things or discoveries that differ from existing or previously known ideas, procedures, methods, and tools. Rogers (1995) defined innovation as an idea, practice, or object that is realized and accepted as something new by a person or group for adoption. Meanwhile, Sanjaya (2010) defined learning innovation as an idea or particular actions in the curriculum and learning that are considered new to solve educational problems. In addition, innovation in the world of education and learning is crucial for students to create opportunities for themselves, avoid useless activities, and, in the end, can support themselves and their families. Innovation in education and learning provides young people with solutions to get out of the big problems they face. In the end, students can complete their education, acquire skills, and transform their community into something that counts.

For a prospective teacher in teaching training or apprenticeship, self-innovation development needs to be done. Then what is meant by self-innovation? Hermans (1999) argued that self-innovation is a condition in which a person accepts change and desires to see it. By being innovative, a person will open up hidden parts of himself. He can also project a positive part of himself onto the other world. Only in this way, a person can become a model for others. Self-innovation is not enough; just wishful thinking. But it must be realized in real work so that other people can see the impact of these new thoughts and actions that can give positive things to others.

Innovation is closely related to change. Making changes for the better in learning to improve the quality of learning is essential. However, not all changes are easy to implement and accept by the learning community. Rogers (1995) argued that accepting a change is not always easy. He further said that convincing the new idea is not easy, even as pointless. Thus, innovators and early adopters are agents who must do so first. Research conducted by Rogers (1995) showed that there was a large gap between innovators (2.5%) and early adopters (early adapters) 13.5%, with the early majority (early majority) 34%, late majority (late majority), 34% who still have to think before making changes.

Meanwhile, the laggards group is 16 % or does not accept or even does not care about renewal. The results of Rogers (1995) proved that the highest percentage of the group is in receiving renewal after socialization and introductions about the existence of a renewal concept. Based on a report from the Global Innovation Index 2020, Indonesia ranked 85 with a score of 26.49 from 131 countries measured by the level of innovation (Soumitra, Lanvin, & Wusch-Vincent, 2020). This position is far behind several ASEAN countries' rankings, such as Singapore, ranked 8 (56.61), Malaysia ranked 33 (42.42), Vietnam ranked 42 (37.12), and Thailand ranked 44 (36.68), and the Philippines, ranked 50 (35, 19). This position shows that level of innovation in Indonesia still needs to be improved if it does not want to lag further behind other countries in the region or developed countries.

In respond to the low level of innovation in Indonesia, including learning terms, there are at least five things educators need to do in the 21st century, so the quality of

learning will be better. These five things are the basis for making innovations in the classroom. First, provide the best learning experience with technical support for complete learning acquisition. Be fully aware that the world is entering the digital revolution era. Whether we like it or not, the shift toward digital technology support must be addressed positively. As agents of change, educators must be able to adapt and collaborate with digital changes in implementing them in the learning system. If not, educators will be crushed in the digital revolution and change. Second, teaching is based on assertive leadership. In the classroom, the teacher acts as a leader (the person who drives the direction of education). Educators must be able to determine how and what learning is carried out. When students show symptoms of not achieving learning goals, educators, as practitioners and learning experts, must immediately turn the control of the class towards the expected goals.

Learning materials do not have to be delivered widely. However, it is delivered in content that is designed following the grasping power and competence of the students, so they do not feel stressed or chased by targets but learn thoroughly (mastery learning). Fourth, the teacher provides a meaningful learning experience for students' lives. Future leaders still on their way to power have had ambitions since they were in school. Educators optimize these ideas through the provision of education in the form of ethical teachings, values, norms, morals, and the demands of life. Fifth, educators invite students to be open-minded. Students are equipped with the power of thinking (fixed-minded), much different from those who have developing-minded. One of the characteristics of an open-minded is a developing mind. Namely, flexibly adjust and change negative paradigms about students and teaching. Fixed-minded is the opposite way of thinking. How can students in the class exceed the indicators of achieving a good level of competence if they come from a group that gives up quickly? Fixed-minded toward students should be replaced with believing that every student can do it. However, they require a different time, approach, and way of learning. Therefore, it is necessary to have self-innovation from educators and students.

Learning model in the time of Covid -19

The Covid-19 pandemic has brought about fundamental changes in the system and implementation of learning in education units and universities. All individuals involved in education and learning are forced to make massive changes. Theories of online learning, blended learning, hybrid learning, and so on that have been used as study material suddenly have to be implemented 100% and annul the research conclusions that have been guided so far. Facts speak differently. The Covid-19 pandemic has changed everything. This radical change in the learning system during the Covid-19 emergency requires learning models that facilitate authentic learning outcomes. Online meetings, technological stuttering, lack of innovation to make changes, and slow adaptation often come to the surface as complaints, obstacles, and limitations in implementing learning during the Covid-19 period.

The learning model is one of the essential components in implementing learning in addition to other components. The selection of appropriate, innovative learning models, facilitating authentic, measurable learning outcomes, and leading students to have particular

competencies during the Covid-19 period is interesting to develop. Therefore, in the current situation, the selection of learning models is an important thing to do.

Project-Based Learning (PjBL) is a product-oriented learning model. It is a model that involves students working on a project in the learning process of particular competencies. Learning with the PjBL Model allows students to develop their creativity in designing and creating projects to solve problems in learning. Learning with the PjBL Model is carried out to deepen the knowledge and skills obtained by creating works or projects related to teaching materials and competencies expected to be possessed by students. Goodman and Stivers (2010) defined Project Based Learning (PjBL) as a teaching model built on learning activities and fundamental tasks that challenge students in everyday life to solve in groups. Hasnawati (2015) explained that a learning model uses projects to achieve attitude, knowledge, and skill competencies as a learning process activity. The emphasis on learning lies in student activities to produce products by applying the skills of researching, analyzing, creating, and presenting learning products based on real experiences. The product in question is the result of a project in the form of designs, schemes, written works, works of art, technological/craft works, and values.

The PjBL model allows students to work together independently or in groups in constructing actual products. Mihardi et al. (2013) also expressed that learning using the PjBL Model directs students to create a project. As a result of project work, students will independently build their knowledge, improve problem-solving, and develop thinking and communication skills. In other words, project-based learning is a learning model that uses problems as the first step in collecting and integrating new knowledge based on experience in real activities. It is designed to be used in complex problems that students must investigate and understand.

Global School Net (2000) reported the results of the auto desk foundation's research on the characteristics of Project-Based Learning with the following features: (a) students make decisions about a framework, (b) there are problems or challenges posed to students, (c) students design processes to determine solutions on the problems or challenges posed, (d) students are collaboratively responsible for accessing and managing information to solve problems, (e) the evaluation process is carried out continuously, (f) students periodically reflect on the activities that have been carried out, (g) the final product of the learning activity will be evaluated qualitatively, and (h) the learning situation is very tolerant of errors and changes.

Based on these findings, the PjBL model was developed based on the constructivism philosophy in learning. Constructivism creates a learning atmosphere that requires students to construct their knowledge (Bada & Olusegun, 2015). The PjBL model is a learning model that allows students to plan learning activities, carry out collaborative projects, and produce work products that can be presented to others. In connection with this definition, project-based learning is a learning model that uses problems as the first step in collecting and integrating new knowledge based on experience in actual activities. In other words, learning involves students directly in the learning process through learning activities to work on and complete a particular project. Although the PjBL model can be said to be an old model, this model has many advantages over other learning models, so it is widely used and continues to be developed. One of these advantages is that the PjBL model is considered an

excellent learning model for developing various basic skills that students must possess, including thinking, decision-making, creativity, and problem-solving abilities. At the same time is seen as adequate for developing self-confidence and student self-management.

Challenges of the internship program in the time of Covid-19

Entering the second year of learning during the Covid-19 pandemic provides an extraordinary experience for teachers, lecturers, students, parents, and policymakers. Implementing learning during the Covid-19 period, which has lasted more than a year, presents challenges for educators and students. The pandemic has eliminated the face-to-face learning process directly in the classroom and replaced it with an online distance learning process through Internet access. This new adaptation makes educators have to fight extra hard to deliver learning materials, so students can absorb learning material to the maximum.

The new normal situation during the Covid-19 period also provides unique challenges for prospective student teacher who will do internships or teaching practices. From initial discussions with students who have done internships during the pandemic and the research carried out, the heaviest challenge in implementing teaching practices for student-teacher candidates is learning that tends to be suboptimal.

Learning materials and delivery, usually delivered by direct interaction in class, cannot be done during this pandemic. Like it or not, learning is now done virtually. Of course, the challenges faced are non-learning problems, such as complex networks, mastery of unfamiliar learning application, and the unequal ability of students and parents at home as companions to the absence of devices that students and parents can use. Student-teacher candidates who have innovations in mastering multimedia face these challenges by developing learning video technology. Learning is packaged properly in the form of messages in learning videos. In this context, student-teacher candidates must innovate and be creative in carrying out the distance learning process with all its challenges. Developing videos is not as imagined, just recording audio and visuals, but must follow the learning principles. Nevertheless, through their experience, student-teacher candidates are challenged to learn and work collaboratively. Both colleagues and supervisors must find the right learning design for distance learning. It includes selecting learning models, learning materials, learning media, and ways to evaluate learning outcomes.

Methodology

This research used a generic qualitative design, focusing on similar life experiences in certain groups. This research focused on the innovation and application of learning models carried out by internship program students during the Covid-19 pandemic. We explored the structure of consciousness as experienced from the first-person point of view.

Data collection

This research was carried out at the first degree (S1) of one education program, in a public university in Jambi, in odd semester specifically for the internship program. The research period is from July-September 2021. The subjects and participants of this research

were students who contracted internship courses totaling 62 people who were selected using the purposeful convenience sampling approach. The selection of research participants was based on the fact that the researchers had access to participants.

Data analysis

In processing interview transcript data, researchers used the NVivo 12 Pro application. NVivo is a software program used for qualitative and mixed methods research. Specifically, to analyze the unstructured text, audio, video, and image data, including (but not limited to) interviews, focus groups, surveys, social media, and journal articles. QSR International manufactures NVivo. The reasons and rationale for using NVivo are: (1) it can analyze and organize unstructured text, audio, video, or image data with deeper insights and more robust analysis; (2) it can playback capabilities for audio and video files, so interviews can be easily transcribed on NVivo; (3) it can retrieve social media data from Facebook, Twitter, and LinkedIn using plug-ins NCapture browser ; (4) Import notes and captures from Evernote - great for field research, (5) Import citations from EndNote, Mendeley, Zotero, or other bibliography management software - great for literature review. Furthermore, the data analysis in this research started with the data transcription and ended with the presentation of the data.

Trustworthiness

To establish the trustworthiness of the findings and interpretations, we had some measures (Creswell, 2014). Member checking and reflexivity were conducted to support the data trustworthiness. After the transcription, the transcription was returned to the participants for confirmation of what they said is right, member checking. Through reflection, more self-aware to control the biases was established. The names of the participants were hidden fof confidentiality reasons.

Findings

This research is generic qualitative research with a approach. This current study was experienced by a group of students during an internship in the Education Administration Study Program. From the results of the interview transcripts, researchers processed qualitative data using the NVivo 12 Pro application for the following reasons: (1) NVivo allows researchers to work effectively with various types of qualitative data, and (2) NVivo provides an organized and structured analysis approach, (3) NVivo makes subgroup analysis easier, (4) NVivo helps writers become more efficient.

Research shows that various essential things related to the Covid-19require students to innovate in the internship practice process in their respective places. To make it easier to describe the research results, the researchers divided them into several themes and coding that found new sub-themes that were closely related. The findings through the NVivo application and the new themes originating from the coding process are explained in the table below:

Table 1. *The findings through the NVivo application and the new themes*

New Themes and Sub-themes	Files (Number of Informants)	References (Number of Descriptions that appear)
Characteristics of the innovations carried out	1	1
Relative advantage	4	7
Compatible	4	6
Complexity	3	5
Observability	4	6
Trialability	3	6
Resistance	1	1
Low student motivation	4	9
Regulations prohibiting face-to-face activities	4	9
Limited Internet facilities and understanding of e-learning	4	6
Innovations made during the Pandemic	1	1
Contextual Teaching Learning (CTL)	4	13
Building a culture of sharing session	4	11
Creating school literacy facilities	2	5
Recommendations and suggestions	1	1
Improving ICT literacy comprehension	4	12

In addition, NVivo has many advantages in processing qualitative data. First, it is in terms of literature material to be processed. One that is quite popular is to bring up the most words that appear on the transcript of the inputted data. The findings of this research produce word frequency which is beneficial for seeing words that often appear from all informants.

Innovation features

According to Rogers (1995), innovation is an idea, practice, or object considered or felt new by an individual or group. It depends on how the individual or group feels about the idea, practice, or object. According to Kuczmarski (2003), innovation is a process or result of developing and utilizing knowledge and skills (including technology). Experience in creating or improving new products (goods or services), processes, or systems, which significantly provide a significant value (especially economically and socially). From the two views before, innovation is a process of spreading absorption of new ideas or things to change a society that occurs continuously from one place to another, from one period to another—following from one particular field to another to a group of social system members.

According to Rogers (1995), the primary purpose of innovation is its adoption (science, technology, community development field) by members of a particular social

system. The social system can be from individuals, informal groups, and organizations to the community. Acceptance or rejection of innovation is a decision made by a person or individual in accepting an innovation. Rogers (1995) also stated that the innovation decision-making process is a mental process in which a person or individual passes from first knowledge of innovation by forming an attitude towards the innovation to deciding to reject or accept, implementing new ideas, and confirming the innovation-decision.

Characteristics of innovation are the nature of the diffusion of innovation, where they determine the speed of an innovation process. Rogers (1995) suggests that there are five characteristics of innovation, namely: relative advantage, compatibility, complexity, trialability or liability (can be tested), and observability (can be observed). Four informants stated that the innovations carried out in the apprenticeship process had met the characteristics of innovation diffusion by Rogers (1995). One of the informants reflected,

> Reference 1 - 3.51% Coverage
> "Making a literacy tree in the classroom, the innovation came from the team in designing English 2, and the other one from Jogja became an idea, and the innovation came from a team agreement that is beneficial for schools."
>
> Reference 2 - 1.91% Coverage
> "The culture of reading in the school environment can increase knowledge by reading the literacy tree that people accept."
>
> Reference 3 - 4.49% Coverage
> "We try it with children or younger siblings who read or come to school. They read with the facilitation of the teacher throughout the class. Children don't just take their assignments to school. They make literacy trees and read and explain them. As a result, the class becomes more colorful and varied."

Innovations made during a pandemic

The pandemic encourages innovation breakthroughs by thinking more creatively and productively to survive and rise from adversity. The critical thinking and creativity processes echoed by the 4.0 revolution era are essentially towards innovation. The pandemic requires online learning to be able to adapt and continue to innovate as the key to the sustainability of educational institutions. Educational innovation is a way to prevent the nation's children who do not experience learning loss and spikes in Covid-19 cases in education clusters.

Innovation is generally successful in introducing a new thing or method (Brewer & Tierney, 2012). In education, it aims to increase productivity and efficiency in the learning process and improve the quality of learning through various innovations in pedagogical theory, methodological approaches, teaching techniques, learning tools, learning processes, and institutional structures (Serdyukov, 2017). The research results found that the innovations made by the Education Administration Study Program internship program had gone through a process of critical thinking and creativity as a support for improving learning outcomes during a pandemic. It is based on the statement of informant one that:

Reference 3 - 2, 37% Coverage
"We teach 5th graders as a simulation and what is done at the internship location. Then try it continuously at the Teaching Campus internship location to be more specific."

Reference 2 - 1.86% Coverage
"To change the mindset of the children to be able to use the media not only for games but also to market products made by their parents."

Additionally, informant two gave a statement by using the following technology:

Reference 3 - 1.53% Coverage
"We use YouTube as a media source, sir, there are already videos on YouTube, so I downloaded a video related to the basic competence or the topic you chose."

Reference 2 - 3.51% Coverage
"Make a literacy tree in the classroom from which innovation emerged from the team, one team made English 2, and the other from Jogja became an idea, and the innovation came from the team's agreement that it would benefit the school".

Reference 1 - 2.07% Coverage
"Teachers working group in one school involves collaboration with various schools and various teachers from various schools but still the teacher working group."

Also, informant three gave the following statement:

Reference 1 - 2.34% Coverage
"The innovations are adjusting to existing needs and adapting to the circumstances so that from existing problems or challenges emerge ideas that can overcome these challenges."

Reference 2 - 1.91% Coverage
"Create social media accounts for the marketing. But it becomes another obstacle to those who market it, sir, because the one who owned it couldn't use the Internet earlier".

Reference 3 - 2.07% Coverage
"Adaptation of technology brings the introduction not only have to go around the village like selling crackers, but it turns out that the introduction can take advantage of online technology."

Moreover, informant four provided a statement of innovation by using a contextual model in internship activities as follows,

Reference 1 - 1.00% Coverage
Innovation applies several learning techniques, such as contextual learning techniques.

The picture above shows that 4 of the informants have made innovations. If it is observed, the innovations carried out are mainly non-physical, namely in the form of concepts, views, and procedures. It can be seen from the innovative behavior carried out by the informants in implementing a culture of sharing (sharing session) and the application of learning with contextual principles (contextual teaching and learning). Meanwhile, physical innovations such as making literacy trees as fewer informants carried out learning media.

Barriers to innovation

Innovation in education is often associated with the use of technology and the Internet to access materials and conduct learning interactions, such as through websites, learning management systems, mobile applications, and social media. However, in reality, often innovative practices in education are limited to technology media and digital channels. In some contexts, when technology tools and networks are inadequate, and the capacity of teachers and parents is limited in optimizing digital technology, it seems that innovation practices must stop. In its essence, innovation is an effort to improve quality and efficiency through various innovations. Obstacles should be anticipated if stakeholders can master education problems during the Covid-19 period. In the findings of this research, informant one gave a statement, namely,

Reference 1 - 2.87% Coverage
"I'm having a bit of a problem because of the government regulations that suggest students study online, so it's a little difficult for me to teach students".

Reference 2 - 3.73% Coverage
"Yes, there is only one problem, maybe because the presence of students is actually different because the area is far away, so face-to-face meetings may only be limited to the duration of the study being not full, only half a day or maybe a quarter of a day".

Reference 2 - 2.27% Coverage
"Students who are given assignments online are mostly not purely their own results; most of them are even 100% done by their families".

Informant 2 gave the following statement:
Reference 1 - 1.57% Coverage
"Even the assessment made can be seen from the aspect of attitude now can not be monitored and seen directly".

Reference 2 - 4.77% Coverage
"Due to the low interest in reading, there are even high-class students who don't understand letters, so the members of the teaching campus team and I made a breakthrough in the form of a gazebo or reading hut with the play method so that it didn't just use the lecture method. However, the challenge of the reading gazebo from the teacher who wants to complete the basic competencies so that they cannot maximize the use of this reading gazebo".

Online learning during the Covid-19 pandemic presents challenges and obstacles to developing innovation. The four informants who revealed barriers to innovation when conducting learning internships all experienced them due to the limited Internet network and ability to use it. Students did not attend school because of online learning and low motivation to learn. Of course, these three phenomena were obstacles to developing student internship innovation. Innovation cannot be developed optimally because not all teachers and students can master technology, not to mention the limitations of networks and technological tools. The government's policy of eliminating learning in schools makes interactions between interns unable to try out the innovations that have been designed. In the end, learning from home causes low student motivation to learn.

Recommendations and suggestions

Innovation in education needs to be understood and carried out not only in the order of ways through the use of technology and digitalization but also needs to start from the order of mindset and behavior. Innovation needs to be seen as an effort to develop the ability to see and do things from a different, critical, creative, attractive, and practical perspective. In this case, creativity is an essential factor for teachers and principals as well as parents or caregivers in generating enthusiasm and the effectiveness of the teaching and learning process through various ways, starting from what is available around students.

Creativity can be developed from a mindset that does not focus on challenges but on various opportunities, no matter how small. With creativity, teachers and parents can assist children in creating a supportive learning system to increase concentration and manage distraction, for example, by creating a regular study schedule, a supportive room arrangement, and doing various icebreakers and simple games when children get tired and bored of studying. The recommendations given by the four informants are as follows,

Informant one

Reference 1 - 4.96% Coverage
"For the internship program to continue to run effectively during the covid-19 period, the distribution of internship places is adjusted to the student's domicile for those outside Jambi City can carry out online internships to reduce the impact of the pandemic, then between assistant lecturers and apprentices must improve

communication and often share stories about what happened at the internship location, either obstacles or information obtained".

Reference 1 - 6.39% Coverage
"In my opinion, the team of teachers and students should work together or discuss what methods are effective to be applied, and we also have to know the background of students so that we can match the learning methods that will be carried out, such as zooming, creating groups on the Internet. WhatsApp, make learning videos that can help students and give assignments that can hone the child's abilities".

Informant two,

Reference 2 - 0.83% Coverage
"Adaptation of learning technology and literacy like that."

Reference 1 - 0.94% Coverage
…….then the problem of teachers who stutter in technology is due to the age factor, so they must be able to master educational technology…….

Reference 3 - 4.96% Coverage
……..In order for the internship program to continue to run effectively during the covid-19 period, the distribution of internship places is adjusted to the student's domicile, for those outside Jambi City can carry out online internships, in order to reduce the impact of the pandemic, then between assistant lecturers and apprentices must improve communication and often share stories about what happened at the internship location, either obstacles or information obtained…….

Informant three

Reference 4 - 1.91% Coverage
"Create a social media account for the study. But it becomes an obstacle again that those who use it do not have sufficient skills because of low mastery of technology and are not familiar with Internet-based learning."

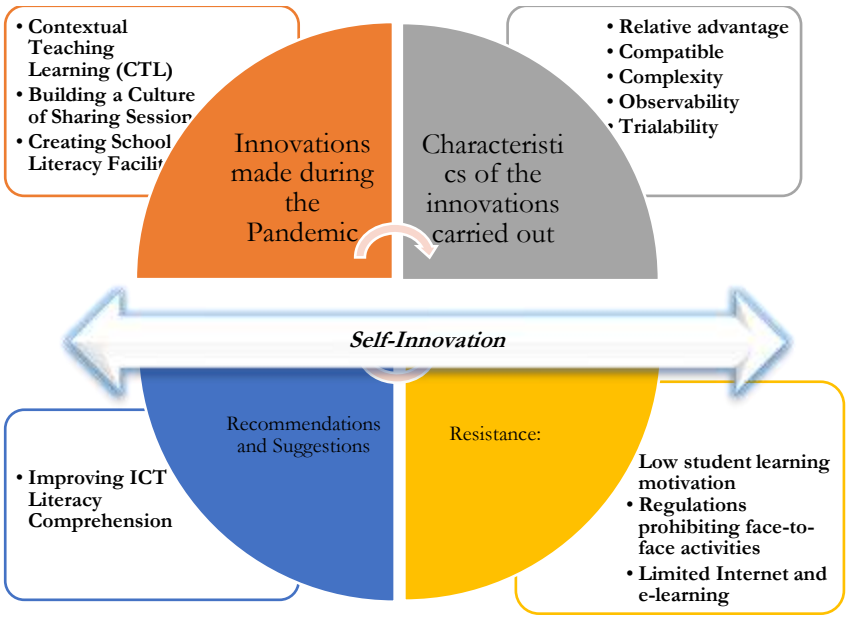
Reference 5 - 2.07% Coverage
"The adaptation of socialization technology does not only have to go around but can be disseminated or disseminated using Internet technology through social media networks."

Informant four

Reference 1 - 2.41% Coverage
"Unfavorable environmental situations such as limited Internet access and tools that support innovation such as lack of book sources, lack of libraries and other adequate tools."

The picture above shows the informants' views that the dissemination of innovations that interns have carried out needs to be improved. The improvement of learning technology competence is carried out by understanding digital literacy. Increasing digital literacy for teachers is vital given the current distribution pattern and learning services that use and rely more on technology. In addition, digital literacy does not only provide benefits in terms of skills, but it also provides an understanding of more varied and broad learning resources. The concept map generated from this research can be described as follows.

Figure 1. *The concept map*



Discussion

The Covid-19 pandemic has closed almost all campuses since mid-March 2020. It is the first time that campuses have faced uncertainty. This condition makes campus people think hard to be able to adapt to uncertainty. Students are also required to adjust to a new lecture style, namely online lectures. They are challenged to learn more about their innovation for adaptation, and they are expected to come up with new innovative ideas that

provide solutions, both innovations for adaptation and innovation and adaptation to changes in healthy living behavior that must be applied in everyday life.

In times like these, students are tough learners to respond to any new uncertainties and come up with various solutions, creativity, and innovation that are much needed by the community. There is no need to produce great masterpieces that can bring about big changes. However, it is a simply creative and innovative work that can inspire and is needed by many people. With this creativity and innovation, beneficial students to others will be realized. Falah (2021) and Sumantyo (2020) widely studied the results of research on self-innovation and student internship models. These findings are in line with this research which resulted in innovations carried out during the pandemic by students, namely Contextual Teaching Learning (CTL), Building a Culture of Sharing Sessions, and Creating School Literacy Facilities. The relevance of these findings is that in today's technological developments, interns are expected to use it as an opportunity to understand how to manage digital content properly, especially for teachers who do not understand technology at all because the adaptation pattern seems so fast and sudden.

Internship students are required to take advantage of technology as an opportunity to develop education in terms of models, media, strategies, and evaluation and assessment of learning. They can socialize the use of ICT during online learning at home. There are several opportunities that teachers and stakeholders can take during the Covid-19 pandemic, including 1) easy access to sharing information online, 2) faster working conditions, and 3) the creation of webinar series. However, apart from these opportunities, several challenges must be faced together, such as 1) how to deal with students (the coping mechanism of the student), 2)availability of gadgets and other relevant resources, and 3) online learning from home has not been implemented and regulated perfectly (not perfectly orchestrated as of the moment) (Azkiya & Syarif, 2021). Thus, to face this challenge, teachers must be able to adapt and develop their abilities in carrying out online learning by utilizing every available source and technology so that they are familiar with and easy to realize even better education with or without Covid-19.

Quality education is synonymous with learning that can provide space and encouragement for students to continue to express and appreciate learning needs according to their talents, interests in growth and development, and the environmental conditions of the students themselves. Using technology as a medium of learning during Covid-19 is one way for students to keep learning (Syarifudin, 2020). The use of technology as a learning medium requires teachers and students to move in a more advanced direction (Sudarsana et al., 2020). On the other hand, using technology to implement teaching and learning activities is very important and beneficial to welcome more effective education in the future.

The global Covid-19 outbreak has accelerated the use and acceptance of the need for digital learning. Nevertheless, the traditional learning model, in this case, face-to-face, is still essential to implement, especially for practical activities in the laboratory, such as learning. In the future, online assessments will be questioned on validity and fairness. In this regard, the problem of plagiarism and self-responsibility in education and learning must be applied because future education emphasizes content more than learning methods (Azkiya & Syarif, 2021). One of the models that teachers can use during the Covid-19 pandemic is Blended Learning.

The learning model is a picture or pattern used during the implementation of the learning that will take place (Karli, 2015). Another opinion stated that the learning model is a framework of systematic procedures for obtaining learning experiences in achieving specific goals (Al-Tabany, 2017). In this regard, Minister of Education and Culture Regulation Number 22 of 2016 concerning Standards for Primary and Secondary Education Processes that: first, to achieve the learning process as stipulated in the 2013 curriculum, it is necessary to apply scientific, technology, engineering, and mathematics (STEM)-based approaches and adopt project-based learning model. Second, learning is carried out in an integrative and collaborative way between subjects to create critical thinking, creativity, and communicative abilities by applying the project-based learning (PjBL) model. Third, teachers guide students to produce works through implemented projects (Kemendikbud, 2016). Thus, in the end, education will bear students who are strong in terms of mastery of knowledge, have a noble character, and have skills based on the demands of changing times.

Conclusion

Policy and innovation are two things that are interrelated and cannot be separated from each other. It is because innovation will provide beneficial new knowledge, while the policy is a concept, guideline, and method that will strengthen the innovation. With empathy from interns who trigger learning innovation efforts carried out by students to achieve internship goals while preventing the spread of Covid-19, it is hoped that they can present something new and beneficial for the realization of effective and efficient education. In carrying out technology-based online learning, internship students have experience and new knowledge related to learning technology, especially those who are technology savvy. The hope is that learning innovations during the Covid-19 pandemic can be used as opportunities to support the quality of internships in the future and be able to compete globally. Future research is expected to be able to in-depth study of student internships in terms of the effectiveness of the internship program, both qualitatively and quantitatively.

Disclosure statement

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