

# Integrating Instructional Leadership and Teaching Tools of AI in a Class; An Analysis for the Ethical Dimensions

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**Abstract:** The digitalization presents a new role for information technology to assist teachers in classroom tasks. Teachers cannot survive alone and close themselves off from the information technology in an all-sophisticated world accompanied by teaching the X generation who have been born in an all-sophisticated era as well. Information technology is the main skill for teachers in the learning process. The application of instructional leadership in the learning process is seen as being able to improve the quality of learning. Because instructional leadership focuses on managing learning starting from planning including the curriculum, then the process of implementing learning by considering the potential of students, and evaluating it. The application of instructional leadership can take advantage of artificial intelligence (AI). Lots of tools that support AI are described in teaching tools, consisting of gpt chat, puzzle maker, classpoint, canva, autocommate, curipod, teachmate ai, and many others. This article explains the analysis of the use of each teaching tool in its implementation by teachers, both in terms of challenges and opportunities. The problem that is often encountered related to the use of AI is that the teacher's motivation is low in learning something because AI is provided instantly, weakening the teacher's potential, and increasing plagiarism. This article was conducted using a qualitative approach through the process of data analysis including reduction, data presentation, and take some conclusions. The data was taken by observing, interviewing, and documenting study. The results of this research are: 1) The school principal plays a role in involving in various training and discussions in order to maintain and even increase teacher creativity, 2) Building a learning culture and making it an organizational philosophy, 3) Appreciation of the achievement of good teacher performance in a certain period, 4) Evaluation in each period to provide feedback to teachers.

**Keywords:** Analysis, Ethical Dimension, Leadership, Teaching Tool, Integrating.

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## Introduction

Education is under the influence of digitalization and makes information technology a tool to transform the educational process to produce output (Godin & Terekhova, 2021). Gillpatrick and Newman argue that some software is used as reinforcement in the education and learning process (Godin & Terekhova, 2021). The emergence of Covid 19 at the beginning of 2020 was a trigger that digitalization is an obligation and challenge that must be responded to positively (Warastuti et al., 2021).

The era of digitalization is not an era that shifts the role of teachers in the learning process in the classroom, but at this time teachers are changing

their role to become facilitators for students. This means that teachers, apart from mastering information technology in depth, also know how to distribute it to students and utilize this technology to help their teaching tasks more easily and quickly. This has become a necessity at this time, because students in this era were born in the fast-moving phase of information technology development.

It's no longer the time when teachers don't understand information technology, it's no longer the time when teachers do things manually, it's no longer the time when teachers do things classically and very slowly, because the current learning phase and criteria for the generation born in the 4.0 and 5.0 era is learning that creative, innovative,

interesting, fun and fast and modern. The term modern has become the main keyword for all of us to characterize the learning process that is taking place today. This means that the learning material and all its tools are presented and carried out using sophisticated, attractive and fast tools.

If we look at it from the beginning of Covid-19 until now, many teachers have started to use several applications that are integrated into their learning. In initial observations carried out in the four best elementary schools in the Panyabungan area with a total of 32 (32) teachers, 75% of them were used to using online applications for the learning process and distance learning but still had problems in integrating several applications in the subjects they teach. Only 10% of them implement this.

There are many obstacles that cause difficulties in integration for teachers in their practice in the subjects they teach. The initial observations came from the school principal's facilitation. In this case the principal is the driving force. The school principal is the initiator (Mashuri et al., nd). Several schools observed had principals with low motivation for teachers in implementing and integrating information technology in the learning process.

The role of the principal in this case will lead to leadership styles, one of which is instructional leadership. This instructional leadership is leadership that focuses on the quality of learning with optimal management of the school's main input, namely students and teachers in the learning process. (Hoy & Miskel, 2012). Leadership will lead to students' academic achievement and this of course has something to do with innovativeness in learning. The integration of information technology in learning is the main study in this regard.

### Materials and Methods

The focus of the research in this article is the integration of instructional leadership and AI learning media in the classroom which is analyzed in both aspects, namely instructional leadership and AI learning media. The research approach used is a descriptive qualitative approach. The

informants in this research were teachers and principals in the four best elementary schools in the Panyabungan area. Secondary data sources are carried out by linking several relevant theories and recent research. Data were validated with continuous observation and triangulation. Data was collected through observation, interviews and documentation. Finally, the data was analyzed by data reduction, data presentation, and drawing conclusions.

### Results and Discussion

Several studies related to leadership state that there is an influence and relationship between the role of the leader and the performance produced by teachers in the learning process (Sari Budihastuti et al., 2016). In other research, it is also explained in detail that school principals who implement instructional leadership in their schools have an influence on the performance displayed by teachers in schools (Fatonah, 2022).

Instructional leadership is the leadership of the school principal who focuses on the school curriculum and teaching (Logho, 2016). Instructional leadership is leadership with the criteria that the principal always monitors student development, provides constructive feedback on his observations at school, controls academic standards at his school, and actively observes teachers at school. (Hoy & Miskel, 2012).

Through this instructional leadership, the principal plays a role in motivating teachers to improve their performance. This role is very important because they have control over the learning and teaching process at school. Instructional leadership involves the way the principal leads, directs, and supports the teaching staff in an effort to improve the quality of teaching and student learning outcomes. The following are some of the principal's key roles in instructional leadership (Logho, 2016):

1. **Setting a Learning Vision and Mission:** The principal must formulate a clear learning vision and mission for the school. They must identify the learning objectives to be achieved and

communicate them clearly to teaching staff, students and parents.

2. **Providing Support and Resources:** Principals must provide the support and resources necessary to support quality teaching. This includes ensuring teachers have the necessary training, access to good learning materials, and relevant technology.
3. **Evaluation and Feedback:** The principal must evaluate teacher performance and provide constructive feedback. They must appreciate the teacher's achievements and provide guidance if there are deficiencies.
4. **Facilitates Collaboration:** School principals must facilitate cooperation and collaboration between teachers. This may include joint planning sessions, teacher team meetings, or collaborative projects between subjects.
5. **Observing Learning:** The principal should regularly observe the learning process in the classroom. These observations provide a direct picture of how teaching is taking place and allow the principal to provide direct feedback to teachers.
6. **Teacher Professional Development:** Principals must support teacher professional development. They can encourage participation in training, seminars, and workshops that are relevant to teaching.
7. **Using Data for Decision Making:** School principals must use student learning outcomes data and other data to make evidence-based decisions. This helps in identifying areas that require extra attention and determining improvement strategies.
8. **Driving Innovation:** Principals must create an environment where innovation is encouraged. They should give teachers the freedom to try new teaching methods and support experimentation aimed at improving learning outcomes.
9. **Exemplary:** The principal must be a good example in terms of dedication, integrity and enthusiasm for learning. They must demonstrate the ethical standards and behavior expected of teaching staff and students.
10. **Parental and Community Involvement:** School principals must involve parents and the

community in efforts to improve learning. This could include parent meetings, joint projects with the community, or inviting guest speakers to the school.

The role of teachers in integrating AI teaching media in the subjects they teach, if viewed from the role of the principal above, is very closely related. So that teachers are able to use several applications such as gpt chat, puzzle maker, classpoint, canva, autoclassmate, curipod, teachmate ai, in this case the principal must be extra strong in providing attention both in the form of motivation and facilities. This is related to the achievement of school principals who are effective in instructional leadership not only managing the school, but also playing an active role in improving the quality of teaching and learning in it. Through strong instructional leadership, schools can create an environment that supports student growth and success.

The results of research based on interviews conducted describe that teachers who have not been able to implement and integrate AI teaching media in the subjects they teach are triggered by several things, including:

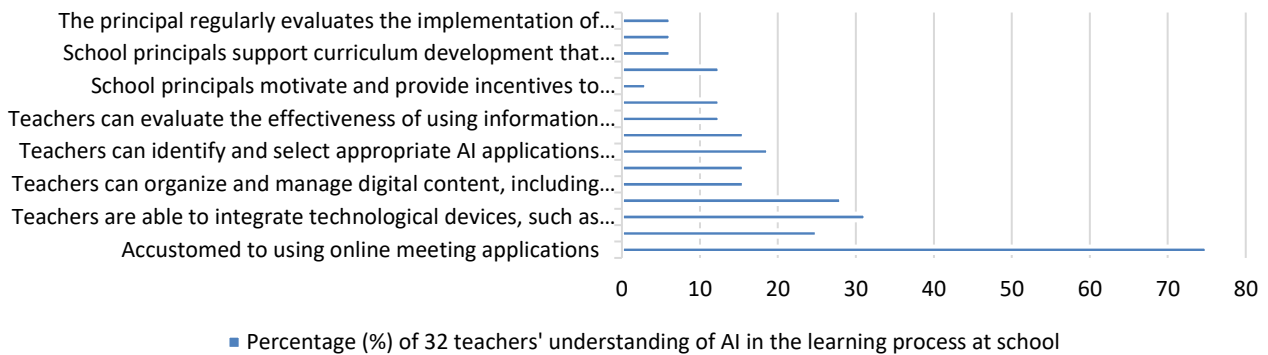
1. Facilities such as the internet are not yet optimally provided by schools, so the use of several AI applications, which predominantly must be connected to the internet, cannot yet be implemented. The internet as a source of practical learning for teachers is a primary need in implementing AI.
2. Not all teachers have laptops and programs that support AI. There are teachers who have laptops from the 90s, there are teachers who borrow laptops, and other conditions that become obstacles. If we observe the condition of schools, not all schools also have computer laboratories that can facilitate teachers.
3. Not all teachers understand using laptops in the learning process. Recruitment of teachers in the outskirts of Panyabungan is one of the reasons that the community here still lacks access to various training and learning related to information technology.
4. School principals who do not understand technological developments and are used to old

ways. So seeing something new is only for people who can.

To increase our understanding, that not all teachers are able to apply and integrate AI teaching

media in the subjects they teach, it can be seen in the following diagram based on the results of data processing from Google forms distributed by the author to 32 teachers:

**Percentage (%) of 32 teachers' understanding of AI in the learning process at school**



Some of the triggers above are certainly the main focus in this case. Facilities are inadequate, training is still rarely carried out to upgrade teacher abilities, and the supporting capacity of school principals needs to be optimized. Various policies and stakeholder roles are needed in this regard. If you are not used to it you have to get used to it, if you can't you have to be able to, if you can't you have to be able to. The educational community in schools must become a learning society and not be closed to change. Anything that

cannot be done can be used as a challenge as a process of adaptation in life.

Some of the challenges encountered in carrying out a digitalized learning process are adapting. Abandoning it is a bad way that actually makes us in the scope of education even smaller and left behind other people (Jakoet-Salie & Ramalobe, 2022). More Shelly at al in (Jakoet-Salie & Ramalobe, 2022) The development of education and training modes is illustrated in the following picture:



**Figure 1.** Modes of Education and Training.

From the picture above we can conclude that the mode of education and learning has undergone changes starting from the traditional face-to-face classroom phase, then learning using media or the

web, then blended learning by combining face-to-face and online learning, and finally In the future it could take place fully online. People will no longer make space or physical buildings their main need

for learning, but technology is what they need. The hope is that teachers must be ready to face this digitalization in learning regardless of the reason.

There are many varieties and modes of digitalization like magic that can be applied in the learning process, so that the demands on teachers in the current era of digitalization which requires all teacher work in terms of administration and the learning process to be completed completely and quickly, is with technology or what is commonly heard is AI (Artificial Intelligence). AI likegpt chat, puzzle maker, classpoint, canva, auticlassmate, curipod, teachmate ai are solutions for teachers in developing the learning process towards quality. However, this development cannot be carried out solely by the role of one teacher alone. Support and direction from the school principal is needed to achieve this.

Sometimes this role needs to be a primary concern for school principals in leading schools

that focus on teachers in this digital era. Speed, practicality and quality must be implemented immediately. This will affect the subsystems in the school so that these qualities will be easy to grasp. Instructional leadership is the answer. So in the end, the school principal will create a digitalized learning culture, meaning that teachers in their learning process are directed towards quality with a digitalization framework that offers speed and practicality.

However, this needs to be underlined as a challenge in the world of digitalization, that AI media is only used as a facilitator for developing the learning process. Teachers are prohibited from using it as a place to think and in the end teachers become lazy about thinking and expressing their creative ideas.

Below we will explain several criteria for digital classes(Haleem et al., 2022):

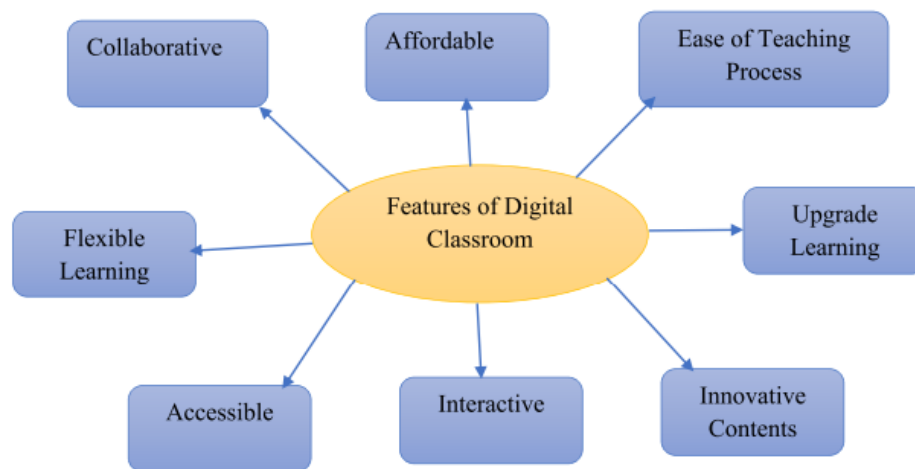


Figure 2. Features of Digital Classroom.

Some of the points above related to digital classes must become a habit for teachers in today's digital classrooms. Teachers cannot shut themselves off and school principals must be active in encouraging teachers to be enthusiastic. If not, students will become victims and they will not be able to compete with the outside world. This is a must for teachers, especially school principals. The principal must support teachers in this matter.

Inviting teachers to implement digitalization in learning is an important task for a school principal.

The following are several steps that school principals can take to encourage teachers to implement digitalization in learning:

1. **Providing Training and Support:** Principals can provide regular training to teachers on the use of technology and digital applications in teaching. Good technical support and training help teachers feel comfortable using digital tools.
2. **Facilitates Access to Devices and Resources:** Principals must ensure that teachers have

adequate access to hardware (computers, tablets, etc.) and software (apps, digital learning platforms, etc.). This may involve allocating the school's budget for purchasing devices or negotiating with suppliers to get better prices.

3. **Demonstrating Benefits and Relevance:** School principals must communicate the benefits of digitalization in learning to teachers. This can include increased student engagement, access to a wider range of learning resources, and improved learning outcomes. Presenting empirical evidence about improving learning through technology can also convince teachers.
4. **Encouraging Collaboration Between Teachers:** School principals can encourage collaboration between teachers in using technology. The selection and application of digital tools can be a collaborative effort, where teachers can share ideas and experiences about the best applications in their learning context.
5. **Providing Administrative Support:** Principals can simplify administrative processes related to technology use, such as purchasing licenses, application licensing, and hardware maintenance. Teachers will be more likely to adopt technology if the administrative process is easy and efficient.
6. **Recognizing and Rewarding Success:** School principals can recognize teachers who successfully apply technology in their learning. This may include awards, praise in front of their peers, or the presentation of a certificate of appreciation.
7. **Supporting Innovation:** Principals must create a culture where innovation and experimentation are valued. Teachers who feel they have the freedom to try new technology without fear of punishment if they fail tend to be more open to technology adoption.
8. **Involving Parents:** School principals can involve parents in the digitalization process. Parent seminars on learning technology or live demonstrations of how their children use technology in the classroom can increase parent support for the use of technology in learning.

Through these steps, principals can build an environment where teachers feel supported,

motivated, and comfortable using technology in the learning process, which will ultimately improve the student learning experience.

### Conclusions

Information technology is the main skill for teachers in the learning process. The application of instructional leadership in the learning process is seen as being able to improve the quality of learning. Because instructional leadership focuses on managing learning starting from planning including the curriculum, then the process of implementing learning by considering student potential and evaluating it. The application of learning leadership can utilize artificial intelligence (AI). There are lots of AI supporting tools explained in teaching tools, consisting of gpt chat, puzzle maker, classpoint, canva, autocommate, curipod, teachmate ai, and many others. The results of this research are: 1) The school principal plays a role in involving various training and discussions in order to maintain and even increase teacher creativity, 2) Building a learning culture and making it an organizational philosophy, 3) Appreciation of the achievement of good teacher performance in a certain period, 4) Evaluation at each period to provide feedback to teachers.

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