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# Teacher Perspective: Innovative, Adaptive, and Responsive Instructional Design Aimed at Life Skills

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# Teacher Perspective: Innovative, Adaptive, and Responsive Instructional Design Aimed at Life Skills

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**Abstract.** Teachers have the main task in developing learning designs. The industrial revolution 4.0 and society 5.0 call forth different learning and paradigms. A new paradigm that requires the ability of teachers to maintain a complexity in the real world becomes a fact that it easily apprehended in the class. The complex process in making learning design requires automation to facilitate its application with valid result and reliable learning design. Learning design that stimulates students with challenging tasks helps to maximize their zone of proximal development. Such learning design leads to innovative, adaptive, and responsive learning design aimed at life skills. This research involves survey that aims to analyze teachers' perceptions of the opportunities for developing innovative, adaptive, and responsive learning designs aimed at life skills. The research samples involved 14 high school History teachers in Jember. Research results show that 85.71% of teachers have the readiness to design innovative, and adaptive learning aimed at life skills. Unfortunately, teachers still have difficulty developing it. While 14.29% of teachers stated that they were not ready because they did not have the provision of knowledge related to their development. This research also described ideas and teacher perspective in designing innovative learning, adaptive responsive aimed at life skills. Furthermore, this study also described the level of teachers' readiness based on analytic abilities, developmental abilities and measurement. The study recommends that the urgency of developing learning designs that are innovative, adaptive and responsive aimed at life skills to empower students facing challenge of life.

## 1. Introduction

Innovative learning design is one of the popular topics in the 21st century. Innovative in this context is characterized by new ideas from teachers that are applied to achieve better learning outcomes [1]. The actualization of innovative learning aims at novel strategies and methods with varied characteristics yet aimed at better learning experience [2] [3].

The innovative ability of teachers is expected to generate more meaningful learning to students. Teachers introduce, stimulate, and optimize the innovative abilities of students [4]. Research conducted by Jurgena & Cēdere points out that students innovative abilities will increase if teachers utilize technology and assign complex tasks that involve students' creativity [5].

Adaptive learning refers to the students' ability to solve all of the problems [6] . The aim of adaptive learning is to allow students with different problems to achieve optimal learning outcomes [7] [8]. Adaptation is not only done to face the challenges all of the time, but also to deal with the various differences found in the school environment.

Students who have adaptive abilities in learning will be more sensitive and try to find solutions when they have problems [9]. They rely on their own thoughts and methods to solve their problem. Technology can make students easier to improve their adaptive abilities in learning [10] [11].

Responsive learning is based on the skills of teachers to provide instructional design that aims to optimize students' sensitivity in the real world [12]. This sensitivity is related to the adaptive abilities possessed by teachers or students. To deal with the development of recent technology, individuals must have these skills in order to create meaningful learning. According to Sahin, responsive and adaptive abilities are integrated into three skills: (1) the skills of identifying and solving problems; (2) skills in utilizing technology; and (3) interpersonal skills [13].

Adaptive and responsive learning are designed to meet diverse student needs, and the approach used is student centered learning. Harden refers to students as a central role [14]. According to the characteristics of Z generation [15], students can orchestrate their own learning based on the objectives, choose the right learning resources to achieve the goals, decide their own sequence, and have responsibility for assessing the success of their own learning through student self assessment. Based on the students' diversity, the adaptive learning design facilitates students to choose what they need according to their learning styles [16], thus serving diverse learners' learning preferences.

Life skills are defined as the ability of individuals to adapt positively to all kinds of life's demands and challenges [17] [18]. This ability includes attitudes, knowledge, and certain skills [19]. Life skills do not just emerge, but are obtained from education and direct interaction with the environment and the people around them. As explained in Social Learning Theory by Bandura, effective learning includes an active role to carry out processes and build experiences [20].

Students' life skills can improve by involving them in learning activities, by applying learning methods such as brainstorming, role playing, games and debates [21] [22]. Therefore, the role of teachers is very important to enhance life skills. In this context, teachers must have the competence and skills [23] to develop instructional design based on life skill.

## 2. Methods

This research is a survey research with the aim of analyzing teachers' perceptions of the opportunities for developing innovative, adaptive and responsive learning skills aimed at life skills. Survey conducted by providing research instruments to teachers. The sample involved in this study are 14 History teachers from five senior high school in Jember regency. The sample details are as follows: 3 History teachers from Jember Senior High School 1, 3 History teachers from Jember Senior High School 2, 3 History teachers from Jember Senior High School 3, 2 History teachers from Jember Senior High School 4, and 3 History teachers from Jember Senior High School 5.

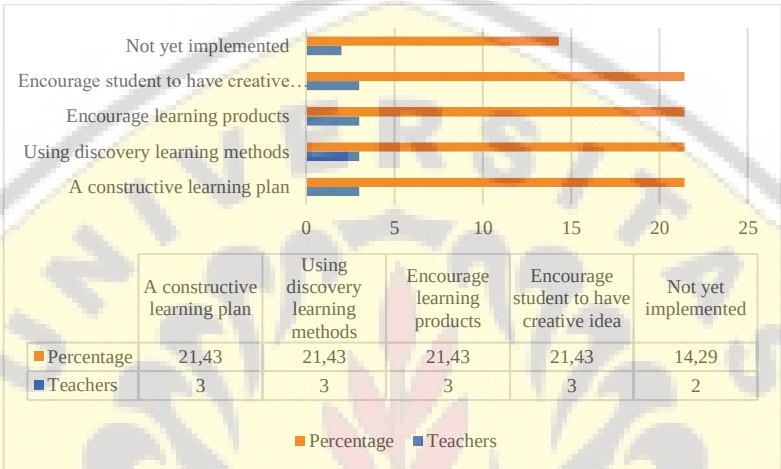
## 3. Results and Discussion

Research result showed that teachers had the same perceptions, when asked about their ability to develop innovative, adaptive, responsive historical learning designs aimed at life skills. However, teachers have various ideas about how the implementation on their instructional design should be.

### *3.1. The Capability of Teachers in Creating Innovative Learning Designs*

The results showed 85.7% of high school History teachers in Jember regency had designed innovative learning, while 14.3%, of them have not yet applied innovative learning. The variety of innovations included the following praxis: (1) 21.43% of teachers prepared lesson plans using the constructive approach; (2) 21.43% of teachers used discovery learning methods; (3) 21.43% of teachers facilitated students to make their own learning products such as leaflets, posters, mind maps, and (4) 21.43% teachers directed students to be active in agility contest activities in History lessson .

**Diagram 1.** Percentage of Implementation of Innovative Learning Designs




| | A constructive learning plan | Using discovery learning methods | Encourage learning products | Encourage student to have creative idea | Not yet implemented |
|---|---|---|---|---|---|
| Percentage | 21,43 | 21,43 | 21,43 | 21,43 | 14,29 |
| Teachers | 3 | 3 | 3 | 3 | 2 |

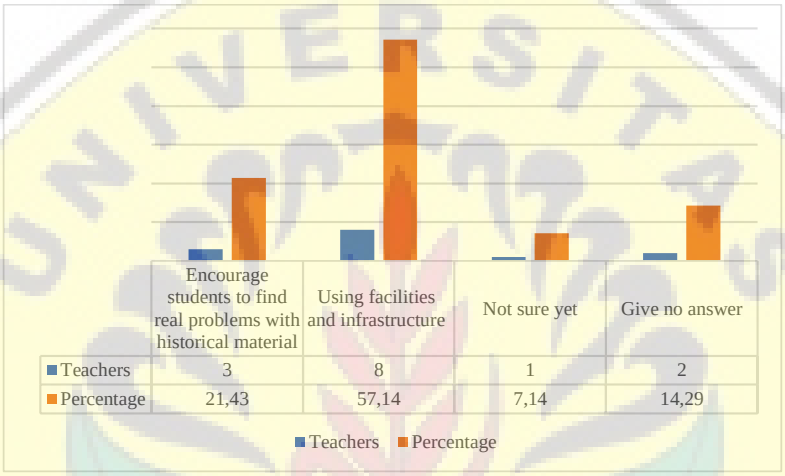
Teachers' ideas for implementation of innovative learning designs are as follows: (1) 42.86% of students are directed towards learning based on History study; (2) 7.14% of the teachers use interactive learning methods and media such as discovery learning and problem based learning; (3) 14.29% of teachers think that not all Basic Competencies (KD) in the syllabus can be designed to improve students' innovative abilities; (4) 14.29% encourage students to make learning products such as posters; (5) 7.14% of the teachers say that the History learning syllabus should be designed in more operational fashion; (6) 7.14% of teachers suggest using the PAIKEM learning method, and (7) 7.14% of the teachers give no answers.

Previous studies have found that the application of innovative learning methods is important to increase students' motivation and enthusiasm (Subraman and Uyappan, 2018 [24], and learning outcomes [25] [26]. According to Zain, innovative abilities that emerge have a relationship with students' creativity [27]. Therefore it becomes relevant if the teachers encourages students to be able to make products in accordance with History learning. A similar opinion is expressed by Seechaliao and Songkhram, who explicate that learning based on problem solving, projects, creative thinking, and research will stimulate students to find new ideas [28][29].

### *3.2. The Capability of Teachers in Creating Adaptive Learning Designs*

The results showed 85.71% of high school History teachers in Jember regency had designed adaptive learning and 14.29% of them had not applied it. The implementation varied as follow: (1) 21.43% of teachers encourage their students to find the relationship between real problems with historical material, (2) 57.14% of teachers utilize school facilities and infrastructure such as laboratories, multimedia-based learning media, availability WiFi, and E-learning, (3) 7.14% gave unsure responses, and (4) 14.29% did not apply.

**Diagram 2.** Percentage of Implementation of Adaptive Learning Designs



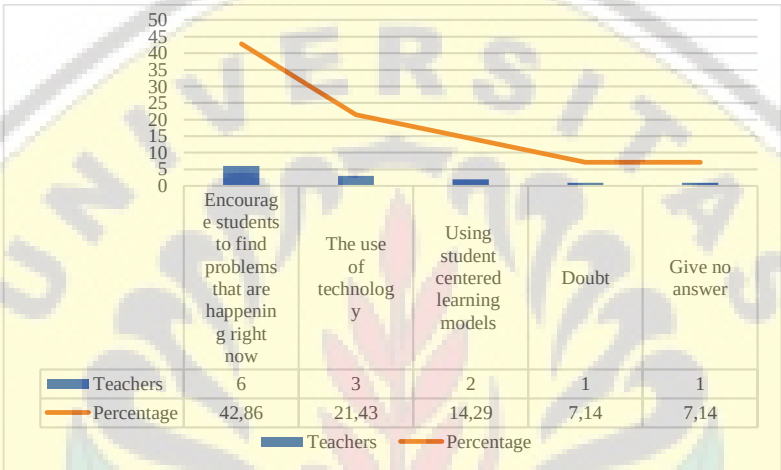

The ideas voiced by teachers to design adaptive learning are as follows: (1) 21.43% suggest giving the concept of problems from various fields such as social, economic, cultural, and political that occur at this time, (2) 71.43% state that the design of History learning should be implemented by utilizing information technology such as computers, learning applications, and multimedia, and (3) 7.14% of them did not provide a response.

Utilization of technology is the most dominant method implemented by History teachers in Jember Regency. These results are consistent with previous research which state that the use of technology can improve adaptive abilities in learning [30] [31]. The use of technology such as e-learning enables students to adapt to their environment [32] [33]. However, the ability of teachers to know the different needs of each student is needed if they want to achieve adaptive learning [34] [35]. As a result, adaptive learning can improve student learning outcomes with different needs.

### *3.3. The Capability of Teachers in Creating Responsive Learning Designs*

The responsive learning design has been implemented by 92.86% of teachers, while 7.14 teachers have not yet implemented it. The range of responsive implementations is as follow: (1) 42.86% of teachers train students to be able to provide ideas related to current problems; (2) 21.43% of teachers use information technology in learning History; (3) 21.43% of teachers use historical learning models that are student-centered learning such as discovery learning, inquiry, problem based learning and so on to increase students' responsive abilities; (4) 7.14% of teachers are still doubtful; and (5) 7.14% gave no response.

**Diagram 3.** Percentage of Implementation of Responsive Learning Designs



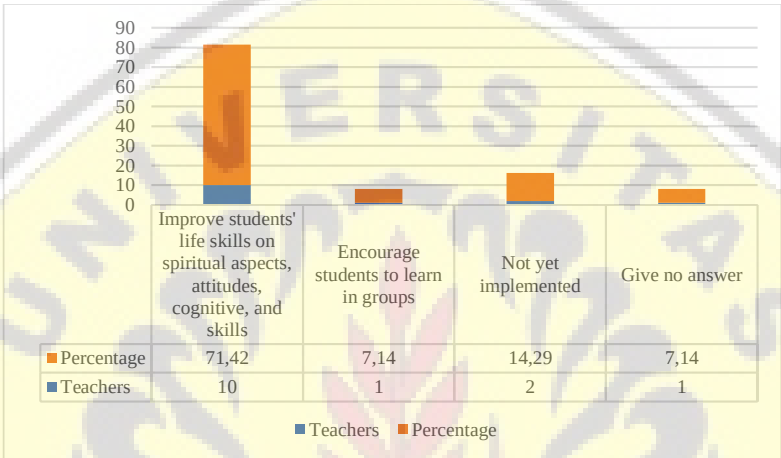

The ideas given by teachers to design responsive History learning are as follows: (1) 21.43% teachers suggest using interactive learning methods such as question and answer; (2) 28.57% of teachers think that learning History must be related to current problems to make it more meaningful; (3) 14.29% of teachers recommend the use of e-learning; (4) 21.43% of teachers suggest the use of historical laboratories; and (5) 14.29% of teachers do not provide ideas or ideas.

Implementing responsive learning designs is a complex process that requires the skills and abilities of teachers to adapt and develop [36]. The results showed the assignment of students to find and solve problems and the use of technology became the dominant learning implementation in order to improve students' responsive abilities. This finding is in accordance with previous research. According to Sahin, important skills to respond to changing times are as follows: (1) skills to find and solve problems; (2) skills in utilizing communication and information technology; and (3) interpersonal skills [37].

### *3.4. The Capability of Teachers in Creating Life Skills-Based Learning Designs*

The results showed that 78.57% of teachers had implemented life skills-based learning designs, while 21.53% of them had not been able to design life skills-based learning. The variety of implementations made by teachers are as follows: (1) 71.42% of teachers integrate on spiritual aspects, attitudes, cognitive, and especially on skills, (2) 7.14% teachers encourage students to learn in groups, (3) 21 , 43% have not yet applied, and (4) 7.14% did not provide an answer.

**Diagram 4.** Percentage of Implementation Life Skills-Based Learning Designs




The ideas given by teachers to design life skills-based History learning are as follows: (1) 21.43% of teachers suggest that learning material is appropriate to the level of student development, multicultural-based learning, and learning systems that are appropriate to the changing times; (2) 28.57% of teachers thought that an increase in students' life skills was needed; (3) 21.43% of teachers suggest giving guidance to groups to students; (4) 21.43% of teachers suggest that teachers are able to find meaning from every past event, so that it has a use value for the future of students, and (5) 7.14% of teachers do not provide answers.

Based on the researchis results, 10 out of 14 teachers have applied life skills-based learning in all aspects of learning such as spiritual, attitude, cognitive, and skills. These findings are in line with the opinions of Yousefzadeh, Naderi, Shariatmadari & Seifnaraghi who state that life skills-based learning can be done not only on the skill aspect but also on the cognitive, spiritual and attitude aspects [38]. Learning models that can improve students life skills are problem solving, groups, questions and answers, exploration brain storming, story telling, debate, discussion, games, and role playing [39].

## 4. Conclusions

The research findings are 14 high school History teachers in Jember regency: (1) 85.7%, have designed innovative learning and 14.3% have not implemented; (2) 85.71% of teachers have designed adaptive learning, 14.29% have not implemented it; (3) 92.86% of teachers have designed responsive learning, 7.14% have not implemented it and (4) 78.57% of teachers have implemented a life skills-based learning design, 21.43% have not implemented it. This result is in line with previous studies that the role of teachers in designing innovative, adaptive, responsive learning skills aimed at life skills is needed to achieve maximum learning goals. In addition, the application of innovative, adaptive, responsive learning skills aimed at life skills can be a solution for students to face the challenges of the times.

Recommendations from this research are important for teachers to always update their competencies to be able to develop innovative, adaptive and responsive learning skills aimed at life skills. So that it can facilitate students to be more innovative, adaptive, responsive and have life skills

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