



# The Effect of Implementation of Independent Curriculum on Motivation and Performance of Biology Teachers in Public High Schools

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**Abstract:** The Independent Curriculum is an educational innovation aimed at providing schools with the flexibility to determine an educational model that fits local needs and the characteristics of students. This study aims to describe the impact of the implementation of the Independent Curriculum on the motivation and performance of biology teachers in public high schools in Palu City. This is a descriptive study with a quantitative approach, to be conducted in 10 public high schools across Palu City. The sample consists of 20 biology teachers from these high schools. The instrument used in the study is an open-ended questionnaire on three aspects: the implementation of the Independent Curriculum, motivation, and performance. For the implementation aspect, there are 16 questions from 3 indicators, for motivation there are 16 questions from 2 indicators, and for performance there are 27 questions from 3 indicators. Tests for validity and reliability, normalcy, linearity, and hypothesis testing with Simple Regression Analysis are all included in the study. Based on the research findings and hypothesis testing, it can be concluded that the implementation of the independent curriculum has a significant and positive effect on the motivation and performance of biology teachers in public high schools in Palu City, with a significance value of 0.000, where  $<0.05$ . Furthermore, the results acquired might be used as a foundation for studies on the biology education process under Independent Curriculum.

**Keywords:** Curriculum implementation; Motivation; Performance of teachers

## Introduction

The Ministry of Education, Culture, Research, and Technology introduced a new curriculum aimed at returning the authority of educational management to schools and the government, known as the independent curriculum. The Independent Curriculum places a strong emphasis on fundamental knowledge, character development, and student competences to foster children's interests and talents from a young age. The implementation of the independent curriculum is expected to improve the overall condition of education in Indonesia. For this the independent curriculum offers three types of programs: project-based learning, soft

skills development, and character formation in line with the Pancasila student profile.

This curriculum also emphasizes essential materials and has a flexible structure (Iskandar et al., 2023). The independent curriculum policy has had a significant impact on changing the educational culture in Indonesia. From primary education to higher education, educational institutions are trying to adjust existing curriculum programs to continue achieving national education goals. However, the supporting infrastructure for this independent curriculum must be balanced with the ability of teachers, students, and parents to implement it. Adjusting to policy implementation requires adaptation and preparation

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for all parties involved in educational institutions (Kusumawati & Astuti, 2022).

The independent curriculum in biology education places a strong emphasis on the necessity of a flexible and adaptive teaching methodology that keeps up with the rapidly changing body of scientific knowledge and the demands of society. With the help of this curriculum model, teachers can customize their lesson plans and subject matter to better engage students and develop their critical thinking abilities. According to Arbuzova et al., the proficiency of biology educators plays a critical role in creating an efficient educational framework, especially considering the ever-changing nature of human-environment interactions (Arbuzova et al., 2021). In addition, the independent curriculum facilitates multidisciplinary education, a crucial aspect of handling intricate biological matters. Beudels et al., for example, stress the significance of combining different scientific fields to improve students' comprehension and application of biological concepts (Beudels et al., 2021). This method enhances the educational process while equipping students with a thorough understanding of biology and how it relates to other sciences, enabling

Teachers play a very important and central role in every stage of curriculum implementation, from primary to higher education. In the context of the independent curriculum, teachers are not only the main determinant in the educational and learning process but also the key to the overall success of the curriculum. Teachers are expected to continue to carry out their duties with professionalism, even with curriculum changes in Indonesia. By applying a fun learning approach, teachers can increase students' interest in learning and help them in their independent learning process to develop their potential. Teachers need to thoroughly understand the basic principles of curriculum development in Indonesia. The current curriculum revision is a reaction to the times and technological improvements as much as a desire to keep the system current. Teachers, whether they like it or not, are expected to continuously develop their personal and professional potential to integrate learning in the classroom. In line with the current curriculum modification, teachers' performance must also be improved. The initial step in the education process to create intelligent, competent, and competitive individuals is aimed at enhancing teachers' performance (Mukminin et al., 2022). Teachers are an essential element responsible for achieving educational goals, including in the implementation of the independent curriculum. Along with the development of the times and technology, the government continues to develop the education system. Therefore, teachers must constantly develop

their potential and improve their performance in line with curriculum changes. However, the maximum achievement in curriculum change has not been fully realized. Curriculum changes often make teachers feel unfamiliar and have difficulty understanding how to implement them (Kurniawan & Falah, 2023).

This study's main goal is to evaluate how independent curriculum affects biology teachers' motivation. Motivation is a crucial component that affects student involvement and the efficacy of instruction. Prior research has demonstrated that an teachers's intrinsic motivation can have a major impact on their methods of instruction and, in turn, the learning outcomes of their students (Suhirman & Yusuf, 2020). Suhirman and Yusuf, for example, discovered that biology teachers' teaching performance is positively impacted by Public Service Motivation (PSM), indicating that motivated teachers are more successful in their positions (Suhirman & Yusuf, 2020). Similarly, studies by Mukagihana et al. show a strong correlation between teachers' motivation levels and their views regarding their subjects, particularly biology (Mukagihana et al., 2021). Thus, this study will investigate how biology teachers' motivation in public high schools may be affected by the independent curriculum, either positively or negatively. Evaluating biology teachers' performance after the independent curriculum is implemented is one more specific goal. Numerous elements, such as instructional materials, pedagogical strategies, and curriculum design, frequently have an impact on teacher effectiveness (Chen et al., 2017; Romy et al., 2021)). The purpose of the study is to determine whether the Independent Curriculum offers biology teachers the resources and assistance to enable them to carry out their duties in an efficient manner. Chen et al., for example, discovered that, notwithstanding individual perceptions, a cohesive curricular structure had a favorable impact on instructors' capacity to present content successfully (Chen et al., 2017). Furthermore, since teachers' opinions might act as a mediating factor in the impacts of the curriculum on teaching effectiveness, the study will take into account the influence that teachers' beliefs have regarding the curriculum and how it is implemented (Odcházlová, 2015).

The results of interviews conducted with biology teachers at Palu's public high schools showed that the Independent Curriculum's implementation in the classroom has not gone as well as it could have. Among the difficulties include unfinished buildings, teachers who continue to look unsure about how to implement the Independent Curriculum, and specialized areas being placed in less-than-ideal locations. There have been several problems, like the fact that some teachers

were unprepared for the changes in the learning system's curricular policy. Many teachers still don't fully grasp how to use the Independent Curriculum in schools, and they are still in the trial phase of its implementation. Due to this, teachers' performance has been impacted, which has changed how motivated they are to adopt the Independent Curriculum.

Because there hasn't been any prior research on the effects of the Independent Curriculum on the performance and motivation of biology teachers in Palu's public high schools, this will be useful for researchers. It is therefore the goal of the researcher to investigate whether biology teachers' motivation and performance in Palu's public high schools are impacted by the implementation of Independent Curriculum, and whether the study's findings can shed light on this relationship. The learning process of the Independent Curriculum will surely lead to improved teacher performance, which will in turn improve student results and allow for even higher educational standards. Furthermore, the results acquired might be used as a foundation for studies on the biology education process under Independent Curriculum.

## Method

The type of this research is quantitative research using descriptive quantitative study, which is aimed at systematically and accurately presenting symptoms, facts, or events related to the characteristics of a specific population or area. This study looked at how introducing the independent curriculum affected biology teachers' performance and motivation in 10 public high schools in the city of Palu. The population targeted in this research consists of all biology teachers from public high schools in the city of Palu, totaling 40 individuals. Meanwhile, the sample in this study consisted of 20 teachers who have implemented the independent curriculum in their classrooms. Data collection techniques used in this study are observation sheets and questionnaires.

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collection techniques used in this study are observation sheets and questionnaires.

The data analysis technique includes validity and reliability tests, normality tests, linearity tests and hypothesis testing. Simple regression analysis used as a hypothesis test in this research. The steps involved in simple regression analysis begin with testing the analytical assumptions, ensuring that the data are normally distributed, the prerequisite tests conducted are: (1) normality tests. The normality test is conducted to determine whether the distribution of data for each research variable is normal or not; (2) linearity test. The linearity test aims to determine whether the relationship between the independent and dependent variables follows a linear pattern and (3) Simple regression analysis (hypothesis test).

Utilizing statistical data analysis, the findings of a questionnaire about the effect of implementing the independent curriculum on the motivation and performance of biology teachers in public high schools across the city of Palu. Following the completion of the data collection phase, SPSS version 25.0 was used for data processing, calculation, and analysis.

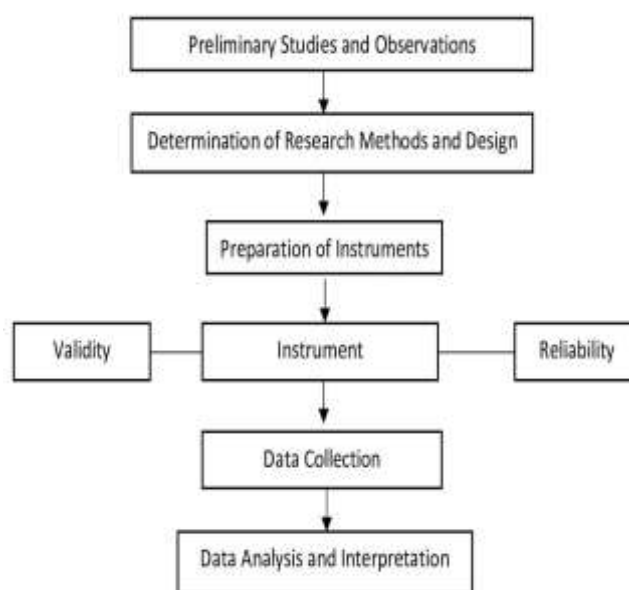


Figure 1. Research flow

## Result and Discussion

### Validity and Reliability Test

Table 1. Validity Statistic

Instrument	N of Items	Information
Implementation of the Independent Curriculum	16	Valid
Motivation	10	Valid
Performance of Teachers	27	Valid

**Table 2.** Reliability Statistics

Instrument	Cronbach's Alpha	N of Items	Information
Implementation of the Independent Curriculum	.946	16	Reliable
Motivation	.928	10	Reliable
Performance of Teachers	.953	27	Reliable

Based on the normality test (Table 3) output table using Kolmogorov-Smirnov Test, it can be concluded that the research data is normally distributed, with a significance value is  $0.968 > 0.05$ . Based on the table, it was found that the significance value for the data on the implementation of the independent curriculum in relation to teacher motivation is  $0.150 > 0.05$  and the significance value for the data on the implementation of the independent curriculum in relation to teacher performance is  $0.120 > 0.05$ . Therefore, it can be concluded that both sets of data exhibit linearity.

**Table 3.** Normality Test

Information	Unstandardized Residual
N	20

**Table 4.** Linearity Test (Anova Table)

			Sum of Squares	df	Mean Square	F	Sig.
Motivation* independent curriculum	Between Groups	(Combined)	1468.800	14	104.914	7.602	.018
		Linearity	1003.899	1	1003.899	72.746	.000
		Deviation from Linearity	464.901	13	35.762	2.591	.150
	Within Groups		69.000	5	13.800		
	Total		1537.800	19			
Performances* Independent curriculum	Between Groups	(Combined)	1669.700	14	119.264	6.008	.029
		Linearity	910.292	1	910.292	45.859	.001
		Deviation from Linearity	759.408	13	58.416	2.943	.120
	Within Groups		99.250	5	19.850		
	Total		1768.950	19			

**Table 5.** Simple Regression Analysis (Anova Table)

Model		Sum of Squares	df	Mean Square	F	Sig.
Motivation	Regression	910.292	1	910.292	19.082	.000 <sup>b</sup>
	Residual	858.658	18	47.703		
	Total	1768.950	19			
Performances	Regression	1003.899	1	1003.899	33.846	.000 <sup>b</sup>
	Residual	533.901	18	29.661		
	Total	1537.800	19			

It has been demonstrated that the Independent Curriculum's implementation in Indonesia has a major impact on teachers' performance and motivation. According to Wiyani's research, school administrators' encouraging actions are critical in creating a climate that inspires teachers to participate in the Independent Curriculum and improves their performance. Wiyani & Mulyani (2023). Similarly, Wulandari emphasizes that

Information	Unstandardized Residual
Test Statistic	.494
Asymp. Sig. (2-tailed)	.968 <sup>c</sup>

Based on the hypothesis testing (Table 4 and Table 5) output table using Simple Regression Analysis, it can be concluded that the implementation of the independent curriculum has a significant and positive effect on the motivation and performance of biology teachers in public high schools in Palu City, with a significance value of 0.000, where  $< 0.05$ . This finding is supported by previous research results Kurniawan & Falah (2023) which indicate that independent curriculum has a significant and positive effect on the motivation and teachers' performance. Practically speaking, this research supports initiatives to enhance teacher effectiveness by implementing the independent curriculum successfully. Research by Jayanti et al., (2024) state with the correct assistance and training, the Independent Curriculum's implementation has the ability to significantly raise both the standard of education and the proficiency of school teachers.

better teacher motivation and overall success in executing the curriculum are closely correlated with effective principal leadership, which is defined by clear communication and strategic planning (Wulandari et al., 2023). Ruaya & al. further stress the need of teacher competency for the Independent Curriculum's successful implementation, noting that informed and



well-prepared instructors are more likely to be driven and deliver quality instruction (Ruaya et al., 2022).

Furthermore, Azizah's research indicates that the Independent Curriculum permits a more student-centered methodology, which has the potential to boost educators' enthusiasm when they witness their students actively participating in the educational process (Azizah et al., 2023). This idea is further supported by Pasaribu's research, which shows that curriculum emphasis on student interests and skills can boost teacher enthusiasm and improve student outcomes (Pasaribu, 2023). Notwithstanding, Baene highlights that certain educators encounter difficulties in incorporating creativity and professionalism into their pedagogical approaches, thereby impeding the efficacy of the curriculum (Baene et al., 2023). Salam agrees, pointing out that intrinsic desire and teachers' preparedness are important elements that affect how well the Independent Curriculum is implemented (Salam et al., 2024).

Using the Independent Curriculum to improve teacher effectiveness and motivation is a complex process that calls for careful planning and assistance. Building a collaborative environment where educators may exchange best practices and experiences is one of the more effective ways to encourage motivation and professional development in teachers (Wiyani et al., 2023; Wang et al., 2022)). In this process, school leadership is vital. Principals that actively interact with teachers and offer continuous assistance can greatly raise teacher morale and curricular commitment (Putri & Kalstum, 2022; Tambingon, 2018)). Furthermore, teacher-specific professional development programs can provide them with the tools they need to carry out the curriculum in an efficient manner, which will enhance their effectiveness and job satisfaction (Mafazi, 2023; Mugarura et al., 2022)). Schools can increase the overall efficacy of the Independent Curriculum by fostering a culture of support and ongoing improvement. Notwithstanding the possible advantages, a number of obstacles prevent the Independent Curriculum from being implemented successfully. Teacher discontent and diminished motivation can result from common difficulties such as inadequate resources, inadequate training, and a lack of administrative support (Wulandari et al., 2023; Kumari, 2017)). Additionally, if teachers feel unprepared or unsupported, they may find it difficult to adjust to the new pedagogical practices mandated by the Independent Curriculum (Ruaya et al., 2022). A comprehensive strategy is required to address these hurdles, and it entails giving teachers the necessary resources, training, and support (Baene et al., 2023). It is imperative that school administrators recognize these challenges and collaborate with educators to devise solutions that enable the curriculum

to be implemented successfully (Wiyani & Mulyani, 2023; Mastur, 2023)).

The potential of the Independent Curriculum to make education more relevant and engaging for both teachers and students highlights how important it is for enhancing teacher motivation and performance. Increased job satisfaction and motivation among teachers might result in better student outcomes as they become more invested in the curriculum (Kumari, 2017; Purnama & Pawiro, 2023)), Subsequent investigations ought to concentrate on examining the enduring consequences of curriculum modifications on academic achievements, specifically how consistent professional growth and assistance can alleviate obstacles and augment teacher effectiveness in the long run (Chiu et al., 2022). Future educational strategies and significant insights into the success of the Independent Curriculum can be gained by examining the relationship between teacher motivation, curriculum implementation, and student performance (Sidik, 2023).

## Conclusion

Based on the research findings and hypothesis testing, it can be concluded that the implementation of the independent curriculum has a significant and positive effect on the motivation and performance of biology teachers in public high schools in Palu City, with a significance value of 0.000, where  $<0.05$ .

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## Author Contributions

Conceptualization, A.S.; methodology, A.B.; validation, R.Q.; investigation, N.A; writing—review and editing, A.S.; A.B.; R.Q.; and N.A. All authors have read and agreed to the published version of the manuscript

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## Conflicts of Interest

The authors declare no conflict of interest

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