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# Teachers' Perception of the Minimum Competency Assessment Instrument (AKM) based on *Lynk.id* to measure Students' Scientific Literacy on Solar System Material

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**Abstract:** The aim of my research is to determine science teachers' perceptions of the *Link.id*-based minimum competency assessment instrument to measure students' scientific literacy on solar system material. The research method used in this research is a mixed method with Sequential Explanatory Design. Data was first collected using a questionnaire and then analyzed using descriptive analysis. This questionnaire was distributed to 36 teachers and 124 junior high school students in Metro City. The research results show that teachers have a positive perception of the use of the Lynk-based Minimum Competency Assessment instrument to measure students' scientific literacy on solar system material. The results of the research show that 67% of teachers have not implemented active learning which leads to developing students' scientific literacy, and 33% of teachers have implemented active learning leading to scientific literacy but have not fully implemented the indicators of scientific literacy. Meanwhile, the level of success in an education does not only look at the learning process, just looking at the 21st century the biggest challenge to the development of competency assessment in Indonesia is no longer relying on individual assessments through the National Examination but see the assessment results continuously. Based on the research results, the level of scientific literacy assessment of students in solar system material is low, this is because students have difficulty applying indicators of scientific literacy. Based on the questions that have been studied, it is known that the questions in the cognitive aspect are still at C1 and C2 levels such as memorizing, explaining, and identifying. As well as based on the questionnaire given that 52% of the assessment is still traditional, namely by using a written formative test and not fully able to take advantage of technological developments. So there is a need for an innovative and effective assessment model so that it can provide measurable, valid and efficient results, one of which is using the *Lynk.id* platform. Based on the results, it can be concluded that science teacher's perceptions of the Lynk-based minimum competency assessment instrument can measure aspects of student' scientific literacy in solar system material.

**Keywords:** Minimum Competency Assessment, Scientific Literacy, *Lynk.id*.

## Introduction

Education is the main factor that determines the progress or decline of a country (Pertiwi et al., 2018). In the educational process, evaluation activities cannot be separated. Evaluation is an activity to collect various information to measure student learning outcomes in terms of affective, cognitive and psychomotor aspects. Because success in learning cannot be separated from assessment (Asy'syakurni et al., 2021). Teachers have an important role in classroom assessment, so it is necessary to reconstruct the current assessment. Learning activities in the 21st century force teachers to be creative and innovative in determining evaluation strategies used to support student learning activities (Rosidin et al., 2020). One effort to innovate evaluation

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strategies for students is by developing a Lynk.id-based scientific literacy Minimum Competency Assessment (AKM) instrument on solar system material. Learning science can help face various challenges in this complex modern era. Therefore, the cultivation of scientific literacy through science learning is not only limited to understanding theory but also must achieve goals in the scientific process (Dewantari & Singgih, 2020). Literacy means literacy or the movement to eradicate illiteracy and is a very important competency to be mastered by every individual because it can help adapt to global challenges. Scientific literacy is defined as a person's ability to understand, communicate (oral and written), and apply scientific knowledge to solve problems, so that they have a high attitude and sensitivity and respond to themselves and their environment in making decisions based on scientific considerations.(Church, 2020). PISA defines scientific literacy as the ability to engage with science-related issues and with scientific ideas as a reflective citizen (OECD, 2019).

Based on the survey, Indonesia is ranked 57th out of 65 countries with a score of 383 and this score is below the average standard from PISA (OECD, 2009). In the 2015 PISA event, Indonesia was in 62nd place out of 72 participating countries. One of the factors causing low student scientific literacy is that students are not familiar with the PISA scientific literacy assessment model. In addition, based on PISA and TIMMS data, it is known that in learning science Indonesia still experiences difficulties in applying concepts in everyday life, analyzing things, integrating information and drawing conclusions. Scientific literacy is known to be able to measure students' ability to explain phenomena scientifically, evaluate and design scientific investigations, and interpret data scientifically through scientific evidence according to Kalkan et al., (2020); Nova et al., (2018). Based on research by Febriyana et al., (2021), the low concept of students' understanding of the solar system material, the delivery of material using the lecture method which makes students bored and bored is still widely used by teachers in schools.

Scientific literacy has indicators that can be used as a reference for measurement, namely explaining phenomena scientifically, evaluating and designing scientific investigations, interpreting data and evidence scientifically (OECD, 2019). These indicators can be used as a reference in carrying out evaluations, for this reason a valid measurement tool is needed to measure the level of scientific literacy of students. Evaluation of learning is used to determine how well students are learning and a separate part of the investigation to improve education (Viyanti et al., 2017). Related to the current educational praxis, in order to measure students' scientific literacy an assessment is carried out. The level of success in education can also be seen from the assessment process carried out to measure the educational goals that have been proclaimed (Fauziah et al., 2021). Assessment must be carried out continuously in order to see and interpret the progress of the learning process that has been implemented (Ihsan et al., 2021)So far, evaluation tools only emphasize content, not scientific literacy such as applying science in everyday or contextual life, thinking to solve problems and some scientific process abilities (A. Salamah et al., 2022).

In 2021, the government has made a policy by replacing the National Examination with a National Assessment. There are differences in the goals of the two, if the National Examination aims to evaluate the success of students after attending a certain level of education and is carried out at the end of the education level, then the National Assessment is an attempt to comprehensively capture the quality of the processes and learning outcomes of primary and secondary education units throughout Indonesia. The information obtained from the national assessment is expected to be used to improve the quality of the learning process in educational units, which in turn can improve the quality of student learning outcomes. One measuring tool that is capable of measuring a level of scientific literacy is using an instrument, namely the Minimum Competency Assessment (AKM) (Aisah et al., 2021). The Minimum Competency Assessment is an assessment of the basic competencies needed by all students to be able to develop their own abilities and play an active role in society in activities that have positive value. AKM is designed to encourage the implementation of innovative learning that is oriented towards developing reasoning abilities, not focusing on memorization (Cahyana, 2020).

Reporting on the results of the AKM is designed to be able to provide information regarding the level of student competency. Teachers can utilize this level of student competency in various subjects to develop effective and quality learning strategies according to the student's level of achievement. Thus, "Teaching at the right level" can be implemented properly. Learning is designed by taking into account the level of student achievement, which will make it easier for students to master the content or competencies expected in a subject (Ministry of Education and Culture, 2020).

To get scientific literacy evaluation results that are valid and efficient, here the researchers want to develop a Minimum Competency Assessment (AKM) instrument based on Lynk.id. Generally, this website is only used by online businesses to distribute their products. Products are introduced and displayed via digital platforms and connected via links to facilitate buying and selling access. However, with the availability of Lynk.id features to simplify and introduce

products, this website also has the opportunity to be used in the online learning process, especially because this website is able to integrate several teaching resources that can be used in learning in one display (Sunyono et al., 2023). The success of the online learning process model is determined by the use of technology that provides interaction services for teachers and students who support interaction provided by digital platforms with various different features according to the objectives of the interaction to be achieved (Assidiqi, 2020).

There are many applications and platforms designed to facilitate learning and work for both students and teachers themselves, such as planning, correcting student assignments and providing feedback, as well as identifying and interpreting evaluations in learning activities, including through the use of the Lynk.id application (Wulan et al., 2019). In an effort to meet the need for reality from the demands of the times as is the nature of education which concerns the process of transmitting knowledge and culture, as well as the development of skills and training for the workforce (Hartono, 2016). Therefore, there needs to be a home for developing learning evaluation to support and update learning evaluation results. This development was carried out with the aim of motivating students in learning The use of Lynk.id in utilizing web-based learning will help make it easier for students and educators to access learning anywhere and anytime practically and for free and freely without disturbing the storage space of educators' and students' cellphones, because this website will prepare and display teaching materials in one a web display that will connect to teaching material products without the need for users to download the teaching materials to be used.

With this digital-based platform, it is hoped that it will make learning activities easier for teachers and students, both in the process and in evaluation. Several researchers have studied assessments to measure students' scientific literacy, including: Berlian & Salsabila, (2023) concluded that the literacy instrument developed in this research is theoretically suitable for measuring students' scientific literacy. Based on the field test stage, 12 questionnaire items met the usability and quality criteria. Taking into account the character of ethnic groups in Indonesia, the instrument achieves longevity to be used to assess and evaluate scientific literacy instruments, especially for educators. Teachers are encouraged to start introducing and training materials with various strategies that have aspects of scientific literacy, as well as evaluation tools so that students are accustomed to working on scientific literacy questions and stimulate students to think critically according to what is contained in the currently implemented independent curriculum, and there needs to be adjustments indicators of scientific literacy questions with PISA questions when creating questions (PN Salamah & Rusilowati, 2017). Pursitasari et al., (2022) believes that considering the importance of teachers' abilities in developing AKM and also to increase students' scientific literacy, it is necessary to hold training activities in preparing scientific literacy questions. However, there has been no research regarding a minimum competency assessment instrument based on lynk.id that is capable of measuring students' scientific literacy, especially regarding the solar system.

## Method

Participant of this research consists of36 respondents were science teachers and 124 respondents were junior high school students2022/2023 academic year. This research uses mixed methods research adopted fromCreswell, 2002with a combining Sequential Explanatory Design strategy data collection and analysis of qualitative and quantitative data. This research was conducted on 7-11 February 2022 at Public and Private Middle Schools in Metro City, Lampung. The first step for researchers was to conduct a literature review of current research results regarding Minimum Competency Assessment, Scientific Literacy and Lynk.id. Then the researcher developed an analytical instrument needs in science learning, then the instrument is distributed to36 science teachers and 124 junior high school students in Metro Cityvia Google Form.

The data analysis technique used in this research is data collection, data reduction, display and verification. Data collection begins with the process of entering researchers at research sites carried out in public and private junior high schools throughout Metro City, after the data has been collected it is then reduced and focused on important matters related to the core of the research, stabilization also eliminates data that is not needed, then summarized completely and systematic so that the research data is obtained accurately, then the final stage is presenting the data and drawing conclusions, namely drawing conclusions obtained from the initial data to the end and verification. After the data is described, it can be verified through the completeness of interview data and documentation. Then interviews were conducted including respondents' responses regarding the learning process carried out at school. This interview was conducted to find out the respondents' reasons regarding the daily learning system, the application of scientific literacy in the classroom, the evaluations carried out, and the use of digital platforms

in evaluation activities. Quantitative and qualitative data analysis was carried out in an integrated and triangulated manner.

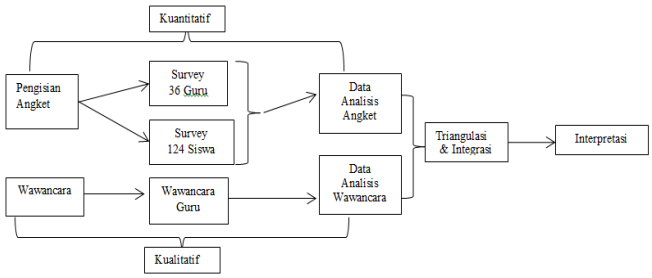


**Figure 1.** Schematic research design

Research data obtained from teacher & student questionnaires were analyzed withgrouping scores, and giving a score to each answer according to the scoring criteria, calculating the total score of the answers to each question,The questionnaire uses the Guttman scale which has a choice of answers according to the contents of the question, namely: "Yes" and "No" with a score of "1" and "0". Then calculatedscore percentage and interpreted qualitatively, the formula used to calculate the score percentage for each item is as follows (Sudjana, 2013):

$$\%\text{Ji} = \left(\frac{\sum Ji}{N}\right) \times 100\% \quad (1)$$

where,% Jin is the percentage of choice answer i, $\sum Ji$ is the number of respondents who answer the answer i, and N is the number of all respondents (Sudjana, 2013).

## Result and Discussion

The following is part of the discussion and research findings based on the data analysis found. The results of distributing the questionnaire to 36 science teachers in the city of Metro are shown in Table 1.

**Table 1.** Results of Interpretation of Teacher's Perception Questionnaire

| Questions | Percentage (%) | |
|---|---|---|
| | Yes | No |
| Do you carry out active learning that leads to the development of scientific literacy? | 33 | 67 |
| Is scientific literacy habituation applied in schools? | 47 | 53 |
| Can the applied learning bring out students' scientific literacy skills? | 50 | 50 |
| Does learning involve students' ability to identify scientific issues? | 53 | 47 |
| Does learning involve students in using scientific evidence? | 42 | 58 |
| Learning involves students in identifying valid scientific opinions?? | 44 | 56 |
| Does the lesson involve students conducting effective literature searches? | 44 | 56 |
| Learning involves students in understanding scientific phenomena?. | 25 | 75 |
| Learning involves students in interpreting data statistically?? | 28 | 72 |
| Does learning involve students in making interference, predictions, and drawing conclusions based on data? | 33 | 67 |
| Is the assessment based on competency indicators that form a continuous competency trajectory for learning outcomes? | 75 | 25 |
| Are the results of the assessment the basis for making improvements in learning? | 100 | 0 |
| Do the research results strengthen quality assessment design? | 89 | 11 |
| The assessments used in schools today can be used to test various skills abilities developed by students? | 52 | 48 |
| Does the evaluation use virtual worlds such as Second life to set students interesting and sophisticated tasks that require the use of skills to solve complex problems? | 81 | 19 |
| Is the implementation of learning for students in a modern way, whether online or offline, better and often more authentic than traditional based assessments? | 86 | 14 |
| With electronic media such as cellphones and computers, it makes it easier to prepare these assignments that are relevant for feedback and grades to students | 95 | 5 |
| Do you agree that a minimum competency assessment instrument based on Lynk.id is implemented to measure students' scientific literacy on solar system material? | 100 | 0 |

Table 1 illustrates that all science teachers have not fully implemented scientific literacy-based learning, therefore they are aware of the importance of scientific literacy being applied in the evaluation process. Moreover, since after the Covid-19 pandemic, the Ministry of Education and Culture issued a new policy, namely the elimination of National Examination (UN) assessment activities, and it will be replaced with another policy in the form of the Minimum Ability Assessment (AKM). Minimum ability assessment (AKM) is a new policy from the Ministry of Education and Culture, which measures reading and numeracy literacy skills, namely the ability to reason using language (reading literacy), and the ability to calculate by applying the concept of counting in a context, whether abstract or real. This is associated with the

demands of 21st century skills, where literacy is one of the competencies or abilities that students must master, in order to be able to compete with the outside world in the era of the industrial revolution 4.0. One of the dimensions of literacy is language literacy, numeracy literacy, digital literacy, financial literacy, cultural and civic literacy and scientific literacy.

However, what researchers want to examine more deeply is the dimensions of scientific literacy. With scientific literacy skills, a person is willing to engage in reasoned discourse about science and technology through the competence to explain phenomena scientifically, evaluate and design scientific investigations, and interpret evidence and data scientifically financial literacy, cultural and civic literacy and scientific literacy. However, what researchers want to study more deeply is the dimensions of scientific literacy. With scientific literacy skills, a person is willing to engage in reasoned discourse about science and technology through the competence to explain phenomena scientifically, evaluate and design scientific investigations, and interpret evidence and data scientifically financial literacy, cultural and civic literacy and scientific literacy. However, what researchers want to examine more deeply is the dimensions of scientific literacy. With scientific literacy skills, a person is willing to engage in reasoned discourse about science and technology through the competence to explain phenomena scientifically, evaluate and design scientific investigations, and interpret evidence and data scientifically (OECD, 2019).

It is hoped that students will be able to follow and get used to learning methods that better strengthen scientific literacy abilities, so that students' thinking abilities will not only be limited to C1 to C3 level cognitive abilities, then students will not only know the pattern of questions given by the teacher, they will only copy them from printed books and LKS are used daily as a learning resource for students without any scientific literacy training. Another factor that causes students' low scientific literacy is students' low interest in reading, one of which is caused by books or reading media that do not look interesting to read. Furthermore, students' interest in literacy is very low so that students are less trained and critical thinking causes students to be confused in problem solving in PISA (Rukoyah et al., 2020). Increasing scientific literacy can actually be improved through the habit of reading and practicing critical thinking questions such as those contained in PISA (Mellyzar et al., 2022).

Therefore, teachers need to teach material in a real context by linking it to the surrounding environment in instilling a lesson concept. In this era of rapidly developing technological advances, most students are more interested in learning and evaluation activities that utilize this technology, for example, by using Quiziz. , Kahoot, and Wondershare Quiz Creator compared to traditional evaluation tools in the form of paper sheets. With the lynk.id-based minimum competency assessment instrument (AKM), it can help and facilitate learning and evaluation activities so that students do not feel bored with the usual evaluation model, namely using sheets of paper, and students become more interested in understanding scientific literacy questions.

It is known that the indicators contained in scientific literacy competence are explaining phenomena scientifically, evaluating and designing scientific investigations, and interpreting data and evidence scientifically (OECD, 2019). In reality, only 33% of active learning leads to the development of scientific literacy. And as many as 47% of the learning process applies scientific literacy habits in schools. The assessment of the measured scientific literacy competency indicators was able to form a continuum of competency trajectories for learning outcomes of 75%. And as many as 81% of teachers agreed when it was done evaluation of science literacy learning uses virtual worlds such as Second life to organize interesting and sophisticated tasks for students that require the use of skills to solve complex problems. Measuring scientific literacy competency is very important to be able to find out the extent to which students understand the scientific concepts they have studied (Budiarti et al., 2021).

**Table 2.** Results of Interpretation of Student's Perception Questionnaire

| Questions | Percentage (%) | |
|---|---|---|
| | Yes | No |
| Is science learning difficult to understand? | 77 | 23 |
| Is the science learning process enjoyable? | 50 | 50 |
| Are there any obstacles when learning science takes place? | 44 | 56 |
| Is science learning related to everyday life? | 77 | 30 |
| Has the teacher used learning resources during science lessons? | 72 | 28 |
| Are you involved in the utilization of existing learning resources? | 74 | 26 |
| Do you agree that learning activities are carried out actively and challengingly? | 84 | 16 |
| Do you agree that the evaluation or assessment process is carried out to encourage students' scientific literacy skills? | 90 | 10 |
| Has E-Assessment been used in science learning? | 48 | 52 |
| Do you agree with using a Lynk.id-based evaluation or assessment tool? | 100 | 0 |

Results of filling out the questionnaire by 124 studentsSMP/MTs from several state and private

schools throughout Metro City are shown in table 2. Based on table 2, as many as 70% of students answered that the science learning carried out was connected to everyday life. And as many as 72% of teachers have used learning resources, namely printed books, worksheets and cellphones. However, these students are not yet fully involved in utilizing existing learning resources properly, only 74% are involved while 26% are not yet involved in utilizing existing learning resources.

According to Samsinar (2019), utilization of sLearning resources will increase learning productivity for both educators and students, motivation and interest in learning, maximum learning completeness because it focuses on individual learning, systematic learning management, and the use and utilization of multimedia in learning. As many as 90% of students agree that learning and evaluation activities are carried out to encourage scientific literacy skills. In fact, only 48% of the evaluation process carried out has used E-Assessment, so far the evaluation process carried out is still traditional using written tests on paper and calculated manually, not yet able to take advantage of currently available technology. This is due to several obstacles, namely, inadequate signal, personal or school facilities, and concerns over paid platforms. From several field facts and statements given by students and teachers, the researchers want to develop a breakthrough, namely the Minimum Competency Assessment (AKM) instrument based on Lynk.id to measure student literacy in solar system material which is able to facilitate the evaluation process for both teachers and students. The following is data from interviews with 3 science teachers, this was done to find out their reasons for the Lynk.id-based Minimum Competency Assessment (AKM) instrument to measure scientific literacy on solar system material.

*Teachers' Opinions Regarding Minimum Competency Assessment (AKM)*

In general, based on data collection carried out through the results of questionnaires for respondents, it shows positive results, namely that teachers know that the minimum competency assessment (AKM) is the Ministry of Education and Culture's new breakthrough as a substitute for the National Examination (UN). The Minimum Competency Assessment (AKM) is an assessment of the fundamental competencies required by all students to be able to develop their own capacity and participate positively in society. The basic competencies measured in AKM are reading literacy and mathematical literacy (numeration). Literacy has many types, one of which researchers want to measure is scientific literacy. AKM presents problems in various contexts which students are expected to be able to solve using their reading literacy and numeracy competencies. AKM is intended to measure competency in depth, not just mastery of content. This is also relevant to scientific literacy assessments which not only measure aspects of student knowledge, but emphasize scientific competence. In this interview, you will be asked about the urgency of AKM in educational evaluation with the following interview data.

*Teacher 1 as the resource person stated:*

"The AKM implementation instrument is a voluntary instrument that involves parents who enthusiastically welcome the AKM policy, as a substitute for the National Examination. They think that AKM saves children from stressful conditions, where the National Examination determines graduation and also determines the choice of school for the next level. Parents, especially mothers, are very enthusiastic about understanding what AKM is, and their curiosity is an entry point for the Ministry of Education and Culture which indirectly acts as an instrument in socializing the implementation of AKM. AKM results are used as an indicator of teacher success in carrying out the learning process, and the success of the school principal as the top manager in the education unit. The success of policy implementation depends on human and financial resource factors, besides that the use of instruments that are adjusted to the efficiency level of their use. Policy implementation will be successful if it begins with communication in the form of outreach, conveying policy objectives, involving target groups and high financial support. Besides that, the mechanisms and strategies for implementing policies become a bridge for the successful implementation of policies. Because they are mandatory tools or instruments in AKM activities, they are the target of this policy. AKM results are used as indicators of teachers' success in carrying out the learning process, and the success of school principals as top managers in educational units. The success of policy implementation depends on human and financial resource factors, in addition to the use of instruments that are adjusted to the level of efficiency in their use. Policy implementation will be successful if it begins with communication in the form of outreach, conveying policy objectives, involving target groups and high financial support. Besides that, the mechanisms and strategies for implementing policies become a bridge for the successful implementation of policies. Because they are mandatory tools or instruments in AKM activities, they are the target of this policy. The AKM results are used as an indicator of teacher success in carrying out the learning process, and the success of the school principal as the top manager in the education unit. The

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*Teacher 2 as a resource stated:*

"Considering the importance of teachers' abilities in developing AKM and also to increase students' scientific literacy, it is necessary to carry out activities to prepare an AKM-based scientific literacy e-assessment. The problems experienced by target teachers are due to their lack of skill in developing assessment instruments used to measure students' scientific literacy. Teachers need to be facilitated and guided in preparing assessment instruments so that they can practice directly and the results are as expected. Guidance for teachers through direct mentoring activities can produce various learning products needed to support the successful implementation of learning. Increasing teachers' ability to make scientific literacy assessments through training can provide teachers with the tools to design assessments needed in science or science learning."

*Teacher 3 as the resource person stated:*

"The Minimum Competency Assessment is designed to produce information that triggers improvements in the quality of teaching and learning, which in turn can improve student learning outcomes. Reporting AKM results is designed to provide information regarding student competency levels. This level of competency can be utilized by teachers of various subjects to develop effective and quality learning strategies according to student achievement levels. The reality is that currently teachers' understanding of the Minimum Competency Assessment (AKM) is still low. "This means that the minimum competency assessment needs to be disseminated more too existing human resources, especially teachers, so that they can implement it by providing examples of similar questions as an effort to improve the quality of student learning outcomes."

*Teachers' Opinions Regarding the Importance of Using E-Worksheets*

In general, based on data collection conducted through a questionnaire to respondents, it showed positive results, namely the teacher agreed on the importance of using Lynk.id-based E-Assessment in science learning, this was reinforced by the following interview data regarding the reasons for the importance of using Lynk-based E-Assessment .id namely:

*Teacher 1 as the resource person stated:*

"The reasons underlying the importance of useE-Assessment based on Lynk.idthat isTo make it easier to convey material and give assignments. According to meE-Assessmentbased on Lynk.idIt is practical and flexible so that students can work on assignments or questions anywhere and anytime. The evaluation question platform that I will provide to students will make students accustomed and not bored reading

scientific literacy questions with an interactive and innovative template model because it is equipped with pictures and videos so that students can clearly understand the concept of the solar system."

*Teacher 2 stated:*
"The reasons underlying the importance of useE-Assessment based on Lynk.id that isSo that students are also aware of technological developments in the world of education, and are able to utilize existing technology. By usingE-AssessmentBased on Lynk.id, the evaluation process becomes easier, apart from being able to do it anywhere and anytime, the platform used is free so it doesn't require a lot of quota, it's environmentally friendly because you no longer traditionally use paper to do questions, and it's no longer difficult for teachers to calculate scores manually. manually, because the score is automatically entered through the teacher's email mail box."

*Teacher 3 as the resource person stated:*
"The reasons underlying the importance of use E-Assessment based on Lynk.idthat isProviding convenience to teachers and students, including unlimited work on and collection of assignments while at school because they can be accessed using a mobile phone or laptop wherever they are.E-Assessmentbased on Lynk.idthat is used comes from the author's own development, in science learning I have never made and used and madeE-Assessmentbased on Lynk.id".

*Teacher's Opinion Regarding Students' Science Literacy*

In general, based on data collection carried out through questionnaires with respondents, it shows positive results regarding the importance of measuring scientific literacy through the Lynk.id-based Minimum Competency Assessment (AKM) instrument, however teachers have obstacles in implementing science learning, these obstacles are revealed in the following interview data. This:

*Teacher 1 as the resource person stated:*
"I feel that there is a lack of allocation of student learning time, and the concept of learning is only focused on the material and has not implemented learning process habits that lead to scientific literacy, and teachers are not used to making scientific literacy evaluation questions so that when making questions as evaluation students are only limited to copying the questions. questions that exist in existing learning resources."

*Teacher 2 as the resource person stated:*
"I haven't practiced this skill because I haven't created a minimum competency assessment instrument (AKM) based on lynk.id to measure students' scientific literacy on solar system material. "Apart from that, there needs to be training in making scientific literacy question instruments so that they are in accordance with PISA, and so that teachers who are predominantly older can keep up with existing technological developments."

*Teacher 3 as the resource person stated:*
"Iconstrained, because there are some students whose interest in learning is still very low"

Based on the results above, it is known that this is in line with research conducted by Takda et al., (2023) namely affecting the low ability of scientific literacy is the limited provision of assessments related to general knowledge of science. And because the teacher only explains focusing on theory without any habituation of scientific literacy and is linked to everyday life so that the material being tested has never been studied by students before. And this is because the teacher only explains, focusing on theory without any familiarization with scientific literacy and connecting it with everyday life, so the material being tested has never been studied by students before. Second, because learning does not yet involve a scientific process. Another thing is that there are differences in the background of students' different understanding abilities (Budiarti et al., 2021). Third, students are not used to working on or understanding questions that lead to scientific literacy (Asy'syakurni et al., 2021). Fourth, the learning process still uses conventional evaluation tools so that evaluation only focuses on concepts which causes students to feel unfamiliar with scientific literacy evaluation questions (Viyanti et al., 2023)

## Conclusion

Based on the results and discussion, the perception of science teachers and junior high school students in Metro City as much as 67% of active learning in the classroom has not led to the development of scientific literacy, because the active learning process is limited to focusing on theory and then giving assignments to students with existing learning resources without utilizing technology currently developing. There needs to be habituation between teachers and students in training scientific literacy skills in orderadvancing education and creating students who are able to compete with the outside world in the era of the industrial revolution 4.0.As many as 50% of teacher respondents were known that the learning carried out could raise students' scientific literacy abilities, therefore in addition to the need for habituation, it was necessary to hold training in making scientific literacy questions so that they matched the scientific literacy competency indicators in PISA. To measure the indicators of

scientific competence tested by students, a test tool is needed in the form of a valid and efficient instrument so that it can make it easier for teachers and students themselves, namely by taking advantage of current advances in educational technology, one of which is the *lynk.id platform*. Based on the results of interviews with teachers regarding student evaluation instruments in secondary schools, an evaluation test tool is needed, namely the Minimum Competency Assessment (AKM) based *Lynk.id* to measure students' scientific literacy in the solar system.

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