

# Comparing the Learning Climate of Al-Makmun's Era and the Indonesian Education System Today

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**Abstract:** *This article is written with the aim of knowing and understanding the comparison of the learning climate during the reign of Al-Makmun and the Indonesian education system today. Al-Makmun with his various policies on education could build a conducive learning climate so as to develop science and make that period into the Golden Age of Islam. On the other hand, education in Indonesia today is also in the spotlight. Indonesia's national education system, which has a structured system and regulations from government policies, also has educational goals to educate the nation's generation. With the curriculum applied and the application of educational technology as well as various and educational problems faced such as uneven education, less competent human resources are a challenge for the government. Based on the existing data, it is possible to compare the learning climate in the AL-Makmun era with the education system in Indonesia today through 4 categories, including in terms of educational objectives, teaching methods and curriculum, educational institutions and the use of educational technology. The comparison aims to understand the advantages of each education system both in the era of Al-Makmun and education in Indonesia today.*

**Abstrak:** Artikel ini ditulis bertujuan mengetahui dan memahami komparasi iklim belajar pada masa pemerintah Al-Makmun dan sistem pendidikan Indonesia masa kini. Al-Makmun dengan berbagai kebijakannya tentang pendidikan dapat membangun sebuah iklim belajar yang kondusif sehingga dapat mengembangkan ilmu pengetahuan dan menjadikan masa itu menjadi the Golden Age of Islam. Di sisi lain, pendidikan di Indonesia saat ini juga menjadi sorotan. Sistem pendidikan nasional Indonesia yang memiliki sistem terstruktur dan terdapat regulasi dari kebijakan pemerintah juga memiliki tujuan pendidikan untuk mencerdaskan generasi bangsa. Dengan kurikulum yang diterapkan dan penerapan teknologi pendidikan serta berbagai dan permasalahan pendidikan yang dihadapi seperti pendidikan yang kurang merata, sumber daya manusia yang kurang kompeten menjadi tantangan tersendiri bagi pemerintah. Berdasarkan data-data yang ada dapat dikomparasikan iklim belajar pada era AL-Makmun dengan sistem pendidikan di Indonesia pada masa kini melalui 4 kategori antara lain dari segi tujuan pendidikan, metode pengajaran dan kurikulum, institusi pendidikan dan penggunaan teknologi pendidikan. Komparasi tersebut bertujuan untuk memahami keunggulan masing – masing sistem pendidikan baik di era Al-Makmun maupun pendidikan di Indonesia saat ini.

## INTRODUCTION

The Abbasid dynasty was an Islamic government after the Umayyad dynasty founded by Abdullah Al-Safah Ibn Muhammad Ibn Ali Ibn Abdullah Ibn Al-Abbas. The Abbasid dynasty ruled from 750 AD/132 AH until 1258 AD/656 AH or it can be said that it ruled for 508 years so that the reign of the Abbasid dynasty had a long time span (El-Fadl, 2000). History records that during the Abbasid Dynasty the world of Islamic education was at its peak. At this time, the progress of science was so rapid that it was said that the special feature of the Abbasid Daulah was that the caliphs and umara strengthened science and civilisation. Their lifestyle is something that can encourage people to seek knowledge (Munjahid, 2020). Science developed rapidly, educational institutions flourished and many written works and books were produced. This was in contrast to the Umayyad period which was characterised as a dynasty with political, economic and military advances.

This period began during the reign of Harun Ar-Rashid (786 AD-809 AD), who dedicated wealth to social interests, such as hospitals, educational and cultural institutions. Harun Ar-Rashid's reign was then continued by his son Al-Amin who was then continued by his brother Al-Makmun (813-833 AD). It was during Al-Makmun's time that Islamic civilisation was at its heyday. The progress of science during Al-Makmun's time can be seen in many ways, including Bait Al-Hikmah which was originally just a library but developed into the largest centre for the study of science and civilisation. Al-Makmun also developed educational institutions with a certain level so that

during the time of Al-Makmun there were also scientists from various disciplines.

The advancement of science during the time of Al-Makmun was supported by many things including the Islamic education system built by Al-Makmun himself. The education system was built structurally and systematically, such as curriculum development, teaching methods and educational institutions. This shows that the learning climate during the time of Al-Makmun was very conducive. Learning climate can be said to be the atmosphere and condition of the classroom in relation to learning activities. Learning climate is a condition characterised by the existence of patterns of interaction and communication between teacher-student, student-teacher and student-student (Irawan, 2014). While Bloom in Ardianto argues that the classroom learning climate is a condition of influence and stimuli from outside in the form of physical, social and intellectual influences that can affect students (Ardiyanto, 2020).

The conducive learning climate made many students at the time of Al-Makmun get quality learning with diverse educational facilities and competent teachers in their fields, so that at this time encouraged a lot of research and the emergence of scientific experts such as Al Khawarizmi and so on so as to foster a great intellectual life.

Historically, Al-Makmun's time was a golden age for civilisation that certainly has an impact today. In Indonesia, education is also a national interest that is organised in such a way as to be regulated by State Laws and other regulations. National education aims to develop the potential of students to become individuals who

have faith and piety, noble character, knowledge, creativity, independence and democratic and responsible citizens. However, education in Indonesia over time has undergone various changes, such as curriculum changes to adapt to the times and the needs of students to be able to compete with the global world.

Education in Indonesia also experiences many challenges, Nurchuda (2022) describes several national education problems such as the low quality of education, confusing curriculum, uneven education, low teacher quality, uneven teacher placement, expensive education costs, and others. These problems have become the focus of government policy in seeking to improve the quality of education in Indonesia.

Based on the above background, this paper will discuss the comparison of the learning climate during the time of Al-Makmun with the education system in Indonesia today. The purpose of this paper is to know and understand the comparison of education in Al-Makmun's era with education in Indonesia today.

## **METHODS**

The type of research used is literature study research or literature study (Library research) using a qualitative approach because what is produced is data in the form of descriptions. Library Studies also known as literature research or literature review, is a research method that uses written sources as the main material for collecting data. It involves collecting, analysing, and synthesising information from various literatures relevant to the research topic. The main purpose of desk research is to understand the state of existing knowledge, identify research gaps, and

establish a theoretical basis for new research (Creswell, 2013). Literature study relies on literature in the form of books, articles, scientific journals or other research results in this case related to education policy during the reign of Al-Makmun and Indonesian Education system. The data source of this research is the subject of the related literature, then the data is obtained and presented objectively and systematically.

## **DISCUSSION**

### **Caliph Al-Makmun**

His full name is Abdullah Abu Abbas Al-Makmun, born on Friday in the middle of the month of Rabiul Awwal in 785 AD / 170 H. He was the son of Caliph Harun Ar-Rashid from his mother named Marajil a descendant of the Persian nation (Iran) who died while giving birth to Al-Makmun (Istiningsih & Mukani, 2016) Caliph Al-Makmun became the seventh caliph of the Abbasid Dynasty in 813 AD or at the age of 28 years after a previous civil war between Al-Makmun and A-Amin who was his brother. The conflict between the brothers was triggered by the dismissal of Al-Makmun as governor of Khurasan by A-Amin. This was considered a violation of the will given by Harun Ar-Rashid so that there was a civil war, with the help of Khurasan troops led by Thahir bin Husai, finally Al-Makmun defeated Al-Amin's troops and was crowned Caliph (Suherman, 2010).

Al-Makmun was the caliph of the Abbasid Dynasty who was famous for his wisdom, good manners and prioritised freedom of thought and discussion. This was also motivated by the mu'tazilah ideology adopted by Al-Makmun, which prioritised logic and rationality so that he was very supportive of all kinds of activities that

required thinking such as discussion or debate so that various opinions and the development of science emerged. Al-Makmun's reign can be said to be a separator between the early and second periods of the Abbasid Dynasty because in the early period the original descendants of the Abbasid Dynasty who came from Khurasan played an important role in the government, but since Al-Makmun became caliph their group was replaced by new people by implementing a new system of government as well.

Mahmudunnasir in Septiani (2011) states that Al-Makmun served for 20 years and the period is divided into 2 parts, namely:

1. Al-Makmun was still actively seeking knowledge so Al-Makmun was busy studying culture and philosophy in Merv so Al-Makmun handed over his government duties to Al-Fadh al ibn Sahal. However, this did not last long because Al-Fadh al abused his power by not informing Al-Makmun of events in Iraq and Syria.
2. The next period began in 819 AD when Al-Makmun took full control of the Abbasid rule, and the chaos ceased. Al-Makmun began to reorganise the government and made various strategic policies that made this period a golden age for both the Abbasid Daulah and Islamic civilisation.

Al-Makmun ruled for 20 years from 813 A.H. to 833 A.H. During this period, Al-Makmun brought Islamic civilisation to its heyday through the development of science. Al-Makmun died when he was 48 years old in Tarsus in 833 AD/218 AH while at war.

### **Learning Climate**

Learning climate is the overall physical, social, and emotional

environment in a school that directly affects students. According to H. Jerome Freiberg, learning climate is a combination of physical, social, and instructional conditions in the educational environment that affect students' ability to learn. According to him, a positive learning climate includes neat classroom organisation, good interpersonal relationships, and the use of effective teaching strategies. (Freiberg, 1999)

Compiled from various experts, the learning climate consists of various interrelated components, among others:

1. Physical factors which include classroom and learning infrastructure facilities
2. External support such as parental or community participation, education policy in the education process
3. Curriculum and learning materials. This relates to the material needs of students as well as the quality of teaching materials
4. Social relations including teacher-student interactions and student-student interactions.

Learning climate can also be said to be a learning environment. The learning environment can be interpreted as a place of learning where a person or group interacts with each other in the learning process which is supported both naturally and through design so as to increase comfort for the learner (Wahid et al., 2017).

### **Learning Climate during the Time of Caliph Al-Makmun**

1. Centres of Learning and Research

The famous centre of learning and research during Al-Makmun's time was Bait Al-Hikmah. Bait Al-Hikmah was a central library for the

development of knowledge. The forerunner of Bait Al-Hikmah was a library during the Persian Sassanian empire called the Jundi Shapur Academy which then Harun Ar-rashid during his reign built an institution called Khizana Al-Hikmah then Al-Makmun changed the name to Bait Al-Hikmah and developed this library in 815 AD (Istiningsih & Mukani, 2016).

Bait Al-Hikmah was the first library in Baghdad which functioned as a place to store, collect and manage books and books containing various fields of science. According to Rubhay Musthofa in the book "Al-Maktabaat fii al-hadharoh al-Arabiyah al-Islamiyah" in Ibrahim (2021) said that the Bait Al-Hikmah library is managed by 3 organisational structures, namely the person in charge of "mushrif al-ulya" then the library officer or librarian "amiin al-maktabah" and the last "al-musaid" or assistant library officer is also called staff.

Bait Al-Hikmah during the time of Al-Makmun was not only a library that stored books, but Bait Al-Hikmah was developed into a centre of scientific institutions. Bait Al-Hikmah made many contributions to the development of science including; as a learning centre, a gathering place for source books and a gathering of great scholars so that Bait Al-Hikmah was visited by many students who wanted to learn religious and other knowledge. Bait Al-Hikmah is also a centre for translating books from various languages into Arabic and also as a place for discussion of scientists (Romdloni, 2010).

The existence of Bait Al-Hikmah held an important role in the development of science during the time of Al-Makmun, not only that Bait Al-Hikmah can be said to be the centre of civilisation because Bait Al-Hikmah

is an institution that houses all scientific development activities, both religious and general sciences such as astronomy, physics, mathematics and so on.

Al-Makmun also built an observatory. An observatory is a scientific institution that serves as a centre for observing and teaching astronomy and related sciences. The first observatory built was called Syammasyiah in 828 AD / 213 H in Baghdad and was led by Fadhl ibn An-Naubakht and Muhammad ibn Musa Al-Khawarizmi who is known as Al-Khawarizmi. Then came various observatories named after astronomers such as the observatories of Al-Battani and Abdul Rahman Al-Shufi (Nurhakim, 2017).

Learning and research centres are one of the physical factors of a conducive learning climate and support effective learning processes that result in good quality education. Bait Al-Hikmah and observatories are designed in such a way not only as a place of learning but supported by facilities and infrastructure as well as competent staff so as to create physical factors of a comprehensive learning climate in learning. Al-Makmun succeeded in creating a learning climate through physical factors that were adequate and in accordance with the needs of the students at the time.

## 2. Al-Makmun's Support for the Development of Science

Al-Makmun was a caliph who was thirsty for knowledge, this encouraged Al-Makmun to get as many sources of knowledge as possible. Al-Makmun therefore promoted a programme of translating scientific works from various languages into the local language to make it easier to learn. Through Bait Al-Hikmah many scientific works were translated, so

that in the first stage that received attention to be translated were Ancient Greek scientific works on philosophy and medicine then after that in the fields of mathematics, astrology and earth science. In addition to these fields, Bait Al-Hikmah also translated music books by Greek scientists so that they gave rise to famous music scholars (Editorial Board of the Islamic Encyclopaedia, 2002).

Al-Makmun's policy on the translation of scientific works cannot be separated from the policies of his predecessors. The policy of translating this work began during the reign of Al-Manshur who had a pioneer translator of Greek thought, Abu Yahya al-Bithriq, who translated the great works of scientists such as Galen, Hippocrates and Ptolemy or the great work of Euclid entitled Elements. Ahmad Syalabi said in Septiani (2011) Al-Makmun appointed several expert translators and writers such as Sahal ibn Harus who was assigned to rewrite books by Greek philosophers brought from the island of Cyprus. There was also Hunain ibn Ishaq, Al-Makmun's translator who was a Nestorian Christian from Hirah. Hunain translated Aristotle's Categories, Physics, Magna Moralia and Hermeneutics, while Plato's Republic, Times and Laws and many other works were translated by Hunain for Al-Makmun.

Al-Makmun's support for the development of knowledge was not only through translation activities, but Al-Makmun also invited scientists to gather in Bait Al-Hikmah. Al-Makmun honoured intellectuals. Al-Makmun also provided salaries for scientists, translators, doctors, astronomers, jurists and even scholars who mastered knowledge in various fields with high nominal. This triggered the

enthusiasm of scientists and others to continue to develop science and translate various Greek and Sanskrit manuscripts into Arabic so that they could be studied more deeply.

The development of science during Al-Makmun's time was also thanks to Al-Makmun's initiative to send several envoys to go to other countries or cities to find manuscripts or scientific works in the area and then translate them, just as Al-Makmun sent envoys to Byzantium and wrote a letter to the King of Rome to allow access to save ancient science in Rome.

Al-Makmun's various educational policies became one component of the learning climate in the form of external support. This external support was very influential in the realisation of a conducive learning climate. The learning climate created from positive external support gave birth to various positive things as well, such as the development of various sciences during the time of Al-Makmun. The development of science was also accompanied by the emergence of figures, scientists from various disciplines such as Al-Khawarizmi in the field of mathematics who produced a book on algebra entitled *Hisab Al-jbr wa al-Muqabalah* (calculation of integrals and equations). Al-Khwarizmi also introduced Arabic numerals and the basis of arithmetic in the West. Then there was Ibn Masawaih from the field of medicine and Al-Kindi a chemist and many more figures who emerged because of the support of good education policies by Al-Makmun.

### 3. Improving the Quality of Education and Research

Improving the quality of education and research was characterised by a comprehensive education system through diverse teaching methods and a curriculum

that suited the needs of the students. According to Rahmawaty (2005), the teaching method used during the Abbasid Dynasty was the halaqah method in which students learned by sitting cross-legged around and listening to explanations from the teacher. Meanwhile, Hanun Asrohah in Khairuddin (2018) states that there were 3 kinds of teaching methods during the Al-Makmun period, including oral, memorising and writing methods. The oral method consists of the first dictation method known as the imla' method which means conveying knowledge so that students have notes, secondly the lecture method which means the teacher explains on the other hand the students listen to it, then thirdly there is the qira'ah method or reciting and finally discussion. The memorisation method is also very typical and is the most common method of learning. While the written method is the most important method because it serves as a method of copying knowledge and this method is also very useful in mastering knowledge and multiplying the number of textbooks.

The curriculum applied at the time of Al-Makmun is a curricular of the same level. The curriculum in this case is not just a lesson plan, but includes everything that actually happens in the educational process. There were three levels of curriculum at the time of Al-Makmun: elementary, secondary and higher education. Education of the basic level or called also Kuttah studied how to read and write the Qur'an, the subject of Islamic religious teachings such as prayer, sanctification and so on, then at this level also studied the history of the Islamic figures, reading poems, counting and basic science of *nahwu* and *shorof*. The curriculum for

secondary education includes the study of Arabic and Siddhartha, *Fikih*, *Hadith*, *Tafsir*, *Nahwu and Shorof*, *Manthiq*, Date Science, Natural Science, Basic Medicine and Music. For instance, in higher education, the curriculum is given according to the needs of the students or is adapted to the majority, as in the science majority there are materials *tafsir*, *hadith*, *fikih ushul*, *balaghah*, *nahwu sharaf* and language, whereas the sciences majority are given such as *manthiq* science, natural science, music chemistry, *falak* science, biology and medicine. (Istiningsih & Mukani, 2016). The development of the educational curriculum during the Al-Makmun era was widespread with the many influences of the Greek, Persian and other cultures whose works were translated. The more works translated, the more sources of knowledge and adding curriculum or learning material given to students.

A good curriculum determines the quality of the graduate. The curricula and teaching methods in the Al-Makmun era are designed and implemented in such a way as to prove that the curriculums and methods of teaching succeeded in producing many scientists with various fields of science, as well as making many branches of science flourishing in the al-Macmun era.

#### 4. The role of Student

The role of the student in the life of the pupil in the time of Al-Makmun was a supportive factor in the progress of science. Those who learn to read and write the Qur'an will be rewarded and permitted to leave. At this basic level, students are not determined by the length of time but by the ability of each child (Rahmawaty, 2005) The students at the time of Al-Makmun have the freedom to choose the teacher

and the lessons they want to take and lessons to take according to their respective levels without any coercion. The students do not choose a good school, but choose teachers who are glorified for their wickedness and skill. Students can move from one teacher to another, so this freedom makes learning more optimal. (Yunus, 1993). If you have completed the lessons of a teacher, then the teacher will sign the script or book written by the student and obtain a degree stating that he is entitled to teach or disseminate to other students. It makes the scientists of the present time have a clear background and strive to preserve the quality of their science. Along with that, Makbulloh in Wahyuningsih (2014) also mentions that students are free to choose teachers. Students also travel badly in search of science or called *rihlah islamiyah*. They move from one place to another to study and also teach at another opportunity according to their knowledge. It has a good impact on the development of science.

The relationship between the teacher and the disciple at the time of Al-Makmun was like his son and his parents who always reminded and reprimanded the student when he committed a mistake. The teacher also directs the student when to proceed with the lesson to be learned according to the ability, intelligence and talent of the student because it is the teacher who knows the level of the ability of a student. The consequence of this may be that there are students who continue higher education without having completed secondary education first, so that the time of the students is not the same.

Based on the above exhibition, at the time of Al-Makmun also built a learning climate component that is

social relationship that is the interaction between teacher and pupil or pupil with other pupils. The interaction that occurs between teacher and student is not only the transfer of science from teacher to student but also the moral interaction between teachers and students, such as the student learning custom and ethics against the student, as well as the teacher has the responsibility to direct his student to become a better person in the demand of science. It creates a comfortable learning climate so that it can make a quality learning process.

### **The Impact of Learning Climate in the Al-Makmun Period on the Global Civilization**

The Al-Makmun period has a climate of learning that is conducive so that it can provide a comfortable learning process and can produce quality learning outcomes. The learning climate component of both physical factors, social relationships, curricula and teaching materials as well as external support synergize in generating comfortable learning climates. Here is the impact of climate-enhancing learning in the Al-Makmun era on global civilization:

1. The translation of Greek, Persian, and Indian works into Arabic enabled wider dissemination of knowledge. These works were later translated into Latin and other European languages during the Renaissance, which played an important role in the rise of science in Europe.
2. Development of Scientific Methodology. The Muslim scientists of the Al-Makmun era not only translated scientific works, but also criticized and developed scientific methodologies. They developed



more accurate experimental methods, observations, and calculations. These contributions form the basis for modern scientific methods.

3. **Advances in the Field of Mathematics** The introduction of algebra by Al-Khawarizmi and further development in the field of mathematics had a major impact on science. The system of decimal numbers and the concept of algorithms, developed by Al-Khwarizmi, were essential for the advancement of mathematics, science, and technology in later days.
4. **Innovations in Astronomy Science** Innovations in observational astronomy and astronomical tables made by Muslim scientists help improve understanding of the motion of celestial objects. Their work provided a foundation for European astronomy and influenced astronomers like Copernicus.
5. **Progress of Medical Science.** The medical works translated and developed at this time, as did Al-Razi and Ibn Sina (Avicenna), have been the main reference in European medical schools for centuries. Their medical encyclopedias are the foundation for modern medical practice.
6. **Map and Geography perfection.** More accurate maps and geographical knowledge developed during this time helped in exploration and trade. These maps became important references for European travelers, including Christopher Columbus.
7. **Philosophy and Critical Thinking.** The integration of Greek philosophy with the teachings of Islam promotes the development of

critical thinking and rationalism. The works of Muslim philosophers such as Al-Kindi, Al-Farabi, and Ibn Rushd (Averroes) influenced the thinking of European philosophies such as Thomas Aquinas.

8. **The discoveries of chemistry and laboratory engineering** by Jabir ibn Hayyan known as the "Father of Chemistry" and other Muslim alchemists form the foundation of modern chemical science. They developed the process of distillation, sublimation, and crystallization, which is still in use to this day. Some of the above are a small part of the impact of the effective learning climate in the Al-Makmun era that affected global civilization. Al-Makmun's support for science and intellectualism created an enabling environment for the development of various disciplines, which made great contributions to the world's civilisation. The reign of Al-Makmun is only 20 years old, but it is a milestone in the history of the golden age of Islamic civilization.

### **Indonesian Education Today**

Education in Indonesia is regulated by the national education system as stipulated in Law of the Republic of Indonesia No. 20/2003 on the National Education System. The principle of education as stated in Article 4 of Law of the Republic of Indonesia No. 20/2003 on the National Education System is that education is organised democratically by upholding human rights, religious values, cultural values and national progress.

#### **1. Structure of the Education System**

Education pathways in Indonesia consist of formal education, non-formal education, and non-formal education. Formal education in

Indonesia consists of primary, secondary and higher education. Primary education includes primary schools and *madrrasah ibtidaiyah* or other equivalent primary education. This basic education is taken for 6 years. Junior High School and *Madrasah Tsanawiyah* (MTs) or other equivalent formats are also included in basic education which is taken for 3 years.

Secondary education is organised in the form of Senior High Schools, *Madrasah Aliyah* (MA), Vocational High Schools, or other equivalent forms. Meanwhile, higher education is a level of education that includes diploma, bachelor, master, professional, and doctoral training programmes organised by higher education institutions. Higher education takes the form of academies, polytechnics, high schools, institutes and universities.

According to Article 26 of Law No 20/2003 on the National Education System, non-formal education focuses on the acquisition of functional knowledge and skills, as well as the development of professional attitudes and personalities, and the development of learners' potential. Non-formal education includes course institutions, training institutions, study groups, community learning centres, *majelis taklim*, and others. Informal education currently takes place through the family and the environment in the form of self-learning activities.

## 2. Curriculum and Learning

The education curriculum in Indonesia has undergone several changes due to adjusting to the times and the needs of students. The latest curriculum known today is the Merdeka curriculum after previously there was the 2013 Curriculum (K-13).

Althaf & Romanti (2022) explained in their article that the Merdeka Curriculum was debuted in February 2022 by the Minister of Education, Culture, Research and Technology as an effort to improve the quality of learning. The Merdeka Curriculum has a focus on the essence of material and character development that has Pancasila values, so there is a Pancasila Student Profile Project.

Curriculum changes certainly have an impact on learning outcomes. Changing the curriculum means changing the system and even the people involved in it, such as educators, education organisers and related parties. The existing curriculum in Indonesia is quite complex, which has an impact on students and teachers in carrying out learning with the existing curriculum. The Merdeka Curriculum, which is currently implemented, is expected to be able to overcome the problems of education quality so that the Merdeka curriculum focuses on the interests and talents of students.

## 3. Technology in Education

The function of technology in education consists of; technology as a tool, technology as science, technology as a material and tool in the learning process (Salsabila & Agustian, 2021). The function of technology as a tool such as technology is used in processing data, creating databases, creating educational administration for students, teachers and education personnel, financial management and so on. Technology as a science means that technology is one of the disciplines studied and must be mastered for students so that technology becomes a skill or skill of students that is useful in everyday life.

Technology as a tool in the learning process such as the use of

technology in distance learning. Many applications as a result of the development of technology so that education can be accessed anytime and anywhere. The development of the technology gave rise to the term e-learning or digital learning. Learning materials can be accessed easily and quickly, so technology in education is very useful in facilitating learning, presenting learning variations so as to improve the quality of learning.

#### 4. International Collaboration

In realising quality that has competitiveness in the global world, the Indonesian government also conducts international collaboration in the field of education through scientific research collaboration, educational visits or comparative studies as well as student exchange programmes. International collaboration is also organised in the form of study abroad scholarships or scientific research involving several countries. The Ministry of Education and Culture has made a policy formulation known as Merdeka Belajar Kampus Merdeka (MBKM). MBKM not only includes student exchanges between universities in Indonesia, but also provides opportunities for student exchanges with other countries. This programme has a positive impact both for students as a form of new experience and learning material abroad as well as for universities and the development of the quality of education in Indonesia.

#### 5. Competency-based education

An educational approach that emphasises the mastery of certain competencies by students. These competencies include knowledge, skills and attitudes required in life and work. In Pijar (2022) the characteristics of competency-based education include; supporting the improvement of

student competencies, oriented towards learning outcomes and diversity, varied approaches and delivery methods, learning resources not only from teachers but students are given the freedom to get learning resources from various learning sources so that they can better understand and explore the material provided and competency-based education emphasises assessment not only on results but also on the learning process and mastery of competencies by students.

#### 6. Problems with Education in Indonesia

Education in Indonesia is still improving. The problems of national education according to Nur & Kurniawati (2022) are divided into 2, among others; education problems in the macro scope and education problems in the micro scope. The problems of education in the macro scope include a complex and confusing curriculum, uneven education means that there are still many remote areas that have not had access to proper education or education in urban areas is more prominent and developed than education in rural or remote areas due to uneven development, the placement of teachers who are still not ideal and the low quality of teachers, and the cost of education which tends to be expensive. Problems in the micro sphere include monotonous learning methods, inadequate facilities and infrastructure, and low levels of student achievement.

This education problem is a challenge for the Indonesian government in order to improve the quality of education in Indonesia. Several policies have been taken such as providing scholarships for underprivileged students, improving the quality of human resources in this

case educators / teachers by conducting various kinds of training and certification to improve teaching competence so that teaching and learning methods are more varied. Other government policies in overcoming educational problems by formulating a curriculum that is oriented towards the learning process that is tailored to the interests and needs of students, so that the potential of students can be well known so that the quality of Indonesian education is getting better.

### **Comparing the Learning Climate of Al-Makmun's Era and Indonesian Education Today**

A comparison of the education system of Al-Makmun's era and today's Indonesia can be seen from several aspects such as educational goals, teaching methods, educational institutions, and technology used.

#### **1. Educational Objectives**

The Al-Makmun era showed a focus on the development of science and rational thinking. Al-Makmun's mu'tazilah background made all policies logically and rationally oriented so that the development of science became rapid because all problems had to be based on science. This era also emphasised scientific knowledge, mathematics, astronomy, medicine, philosophy and literature. Through the translation of writings from various languages such as Greek that contain fields of science such as philosophy, mathematics and the like, scientific development in the Al-Makmun era flourished and became a role model for Western countries.

Meanwhile, education in Indonesia aims to produce a generation that is educated and ready to work in order to live a better life. The curriculum covers a wide range of

subjects and disciplines, with moral education added to each level of education.

#### **2. Teaching Methods and Curriculum**

In Al-Makmun's era, teaching was conducted by scholars or scientists and leading *ulama*. The students came and chose their teachers/*shaikhs* according to their interests. The methods used were dictation, lecture, memorisation. At this time the students also conducted scientific discussions and debates to encourage critical thinking. In addition, the Al-Makmun era used manuscripts or scientific works by scientists and books as the main source of learning. The curriculum at the time of Al-Makmun consisted of three levels, consisting of primary, secondary and tertiary education with subjects tailored to the abilities of the students so that it could be that the process or length of learning time of the students was not the same from one student to another.

Indonesian education has varied teaching methods ranging from lectures, discussions, practicals, to project and competency-based learning. Teaching methods in Indonesia are supported by digital technology such as computers and the internet used to support the teaching and learning process. These teaching methods support learning to be done anywhere or distance learning without compromising the essence of learning. Education in Indonesia also implements a structured curriculum with national standards. The level of education in Indonesia also consists of 3 levels of education namely primary, secondary and higher education. However, in Indonesia there is a minimum learning time such as elementary school education must be taken within 6 years.

### 3. Educational Institutions

Al-Makmun developed Bait Al-Hikmah in Baghdad as a centre of education and research. Bait Al-Hikmah was not just a library that stored collections, but was developed into an institution in which there were various scientific activities such as translation activities, scientific discussion activities and learning for students. Al-Makmun also established an observatory for research related to astronomy and other related sciences. Learning activities also exist in institutions such as madrasas according to existing levels.

Indonesia has various types of institutions ranging from primary, secondary and tertiary education. Many schools and universities are spread throughout Indonesia. Not only formal education such as SD, SMP and SMA or in the form of madrasas such as MI, MTs and MA, education in Indonesia also has non-formal education institutions such as pesantren institutions, community learning activity centres, course institutions and so on which aim to improve the quality of education and competencies. In addition, the government plays an active role in regulating and supervising the education system by making various regulations for all educational institutions.

### 4. Educational Technology

The educational technology used during the time of Al-Makmun was limited to manuscripts and simple scientific tools such as astrolabes and measuring instruments, but with these limitations supported by various sources of knowledge which were then criticised and studied further, various disciplines were developed. Massive research conducted by scientists and supportive discussion activities can

produce new discoveries and then be refined.

The development of the times today triggers the use of information and communication technology is very dominant. The development of advanced technology supports the implementation of education that is more accessible. E-learning and online learning have become part of the education system as well as access to information and extensive learning resources through the internet. Scientific research and development is also rapidly supported by information and communication technology accompanied by sophisticated equipment.

The education system of Al-Makmun's era was very advanced in its day with a focus on science and critical thinking through the institution of Bait Al-Hikmah. Meanwhile, the education system in Indonesia today is more structured and supported by modern technology, with a curriculum that covers various fields to prepare students for the challenges of the world of work. Both systems have their own advantages according to the context of the times and the needs of the learners.

### CONCLUSION

The Abbasid dynasty was a dynasty that recorded the heyday of Islam, especially during the time of Al-Makmun. Al-Makmun was the son of Harun Ar-Rashid. Al-Makmun was a caliph who had a high concern for science against the background of his mu'tazilah ideology. Al-Makmun's government with its various policies built a conducive learning climate for students. Learning climate is an interaction environment that can affect the learning process. The components of the learning climate during Al-

Makmun's time consisted of; First, physical factors, the physical factors of the learning climate during Al-Makmun's time were the existence of learning and research centres, including Bait Al-Hikmah. Second, external support in the form of Al-Makmun's educational policies in the development of science, such as the promotion of activities to translate scientific works from Greek into Arabic for easy learning and other policies. Thirdly, the curriculum and teaching methods signalled an improvement in the quality of education and research during Al-Makmun's time. Finally, the social relations component, in this case the role of students interacting with teachers or students interacting with other students. The interaction between teachers and students during the time of Al-Makmun was very harmonious so that it had a positive impact on both of them.

The impact of the conducive learning climate during Al-Makmun's time included the spread of science, the development of scientific methodology, advances in mathematics, innovations in astronomy, advances in medical science, refinement of maps and geography, philosophy and critical thinking and the development of chemistry.

The National Education System in Indonesia is regulated in Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System. Education in Indonesia has a clear education system such as the existence of education pathways including formal, non-formal and informal education and education levels. Education in Indonesia also has a curriculum that is structured and regulated nationally. The use of technology in education is also very

helpful both in the learning process and as a discipline so that technology can support the development of education so that it can be accessed easily and accessed anywhere. International collaborations organised both with student exchanges and scientific research conducted together also support the realisation of quality education. Education in Indonesia is also supported by competency-based education that emphasises the mastery of certain competencies by students, so that students can develop their knowledge to the fullest. On the other hand, Indonesian education also faces various problems. Education problems in Indonesia are grouped into two, including macro education problems and micro education problems. These problems are a challenge for the government as the party that makes education regulations and policies.

Based on the explanation above, we can compare education during the time of Al-Makmun and education in Indonesia today. This comparison is seen from 4 categories including; educational objectives, teaching methods and curriculum, educational institutions and educational technology. This comparison is certainly not to compare a better education system, but to understand the advantages of each education system according to the times and the needs of society.

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