

EXPLORING CULTURAL POTENTIAL THROUGH THE INTEGRATION OF SCIENCE IN COMMUNITY LIFE

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| Article Info | ABSTRACT |
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| Keywords: Integration of Science, Culture, Science, Society | The integration of science and culture is crucial to build an advanced and competitive society in the current era of technological development. This integration supports the preservation of cultural values while encouraging new innovations based on local cultural wealth. The cultural richness of Indonesia should be grateful. The various cultures that exist in the community are widespread from Sabang to Merauke. This cultural richness must certainly be balanced by science. The role of science in culture is very important because it also influences cultural change. For this reason, it is important to integrate science in community culture because science itself is broad in covering the fields of human life and social sciences. This research aims to identify and analyze the ways in which science can be integrated with culture and its impact on community life. The importance of the development of science cannot be separated from the cultural aspect, because culture is the 'heartbeat' of people's lives. For this reason, by not marginalizing the cultural aspect, science can run in tandem with the cultural aspect. |
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INTRODUCTION

In the Great Dictionary of the Indonesian Language (KBBI), integration is a blend until it becomes a whole or unanimous unity. According to John G. Kemeny, science is all knowledge that is collected using a scientific method and is the result of a process made using a method. While culture is the result of human activities and the creation of the mind (intellect), such as beliefs, art, and customs; The whole knowledge of human beings as social beings is used to understand the environment and their experiences that guide their behavior (Jannah, 2023).

The integration of knowledge in community life is one of the important elements in building an advanced and competitive society. Science provides a theoretical and practical basis for understanding the world and creating innovations that can improve the quality of human life. Meanwhile, culture reflects the values, traditions, and identity of a society. By integrating science and culture, we can create synergies that enrich the two fields, while strengthening the social and moral foundations of society.



Culture not only functions as a regulator of people's behavior, but also plays an important role in meeting various basic human needs. Clothing, for example, is a basic necessity born from cultural products, resulting in various trends that develop over time such as the modern kebaya. Technology is also a cultural product that makes it easier for humans in various aspects of life, especially communication technology that allows interaction without space and time limits. Food as a staple is also a cultural product, with various regional culinary specialties such as gudeg from Jogja and spring rolls from Semarang, as well as a unique way of managing food in each region. In addition, houses as other basic necessities are also influenced by culture, which creates various trends in the shape and model of buildings, as well as typical building styles in each region such as Joglo traditional houses in Central Java.

Science and culture occupy a very essential position in human life, where they are interrelated and influencing. The development of science in a society is highly dependent on the cultural conditions in the environment, while the development of science also affects the course of culture. According to Talcott Parsons, science and culture support each other; In some types of society, science can develop very rapidly, and conversely, the community environment will not be able to function properly if it is not supported by the healthy development of science and its application.

To develop national culture, science has a dual role, namely as a source of value that supports the implementation of national cultural development and as a source of value that fills the formation of a nation's character. According to its function, science can be divided into two parts: first, science as a way of thinking, and second, science as a moral principle. Science is said to be a mindset because in producing a conclusion in the form of knowledge, science is reliable. Thinking is not the only way to produce knowledge, and so science is not the only result of thinking activities. Science is the result of a thought process that is based on certain steps, or often referred to as a scientific way of thinking.

Some of the characteristics of science as one of the processes or conditions for scientific thinking include several important aspects. First, science plays a role as a tool to obtain correct knowledge that can be understood by human reason. Second, the flow of the mindset must be logical and consistent with existing knowledge. Third, testing can be carried out empirically as an objective criterion of truth; If a statement can be described logically and has been empirically tested, then the science can be considered scientifically correct and enriches the treasures of scientific knowledge. Fourth, the mechanism of science is open to correction or change. In addition, science also functions as a moral principle, where science is the result of thinking activities to obtain correct knowledge. In determining whether a statement is true or false, a scientist will draw his conclusions based on the arguments contained in the statement, not on the influence of the institutional power that issued the statement. Truth for a scientist has a universal function for humanity in an effort to improve its human dignity. In its development, the philosophy of science, which includes three aspects of study, namely ontology, epistemology, and axiology, and lays down the five elements of human beings, namely creation, taste, karsa, lust, and conscience, which are



universal in the environment of epistemological studies, allowing the development of social and humanitarian sciences and their branches such as sociology, psychology, political science, economics, management, anthropology, and other branches of science.

In the past, the position of science in daily life could not be felt. Science has no influence on society at all. Aristotle's expression about science "mankind guarantees its affairs for daily life, then he directs his attention to science" (Van Melsen, 1987). The elements of science and art are one of the important elements in cultural integration. Science in this context is a broad insight which is the most important key in the development of cultural integration through science. Without broad insight, we will never understand and understand how to interact with various groups with different values, customs, as well as our beliefs and habits.

Based on this description, the author is encouraged to describe the integrity of science in the aspect of human culture. The study of these problems aims to increase exploration and scientific review related to the role of science in human daily life. The study, entitled Integrity of Knowledge in Cultural Aspects, is expected to add scientific references that remind us that humans as social beings continue to learn to adapt to other groups of different cultures to achieve harmony in society.

METHOD

This article is prepared using a qualitative approach. The method used in this article is a literature study conducted by reviewing previous findings related to the integrity of science in the aspect of human culture. The data used in this study is in the form of secondary data sourced from several previous studies. The data analysis method uses qualitative descriptive analysis techniques that aim to analyze the problems of scientific development on aspects of human culture.

RESULTS AND DISCUSSION

Cultural values are the soul of culture and are the basis of all cultural implications. Human activities reflect the culture they contain. Basically, the way of life is a concrete reflection of abstract cultural values. In essence, human activities can be captured by the five senses, while cultural values and human life systems are supported by the third cultural manifestation, namely in the form of cultural facilities. This cultural facility is basically a physical manifestation which is a product of culture or a tool that provides ease of life.

Nowadays science has become very useful in daily life, as if humans today cannot live without knowledge. Even the simplest human needs now require knowledge, such as the need for food, clothing, and board, which is highly dependent on knowledge, even the simplest ones. According to Koentjoroningrat, the knowledge system is one of the elements of culture. Cultural integration is one of the ways people follow the majority culture, but on



the one hand still maintain their culture. The willingness to integrate is very important for the survival of the social life of the community.

According to E.B. Taylor in his book entitled Primitive Cultuture, culture includes aspects of knowledge, belief, art, morals, laws, customs and other abilities and habits that humans acquire as members of society (Suriasumantri), from this the elements of science and culture have the same value. Thus, science itself is part of culture. Science and culture have a relationship that affects and interdepends. On the one hand, the development of science in a society depends on the cultural conditions of the community, and also the development of science will affect the development of community culture. The contribution of knowledge to culture is to the values contained in science, namely ethics, aesthetics and logic. Knowledge is a source of values and lifestyles, both for individual personality development and collective community development.

There is a close relationship between humans and society and culture. Without society, people and culture cannot develop properly. Without humans, there can be no culture. Without humans, there could be no society. Some forms of culture are spiritual, such as customs and science. There are physical things, for example, clothing, which means philosophy as the deepest science, then philosophy includes culture.

The development of science depends on the development of culture, while the development of science can have an influence on culture. Social and cultural conditions, interdependent and mutually supportive, In some cultures, science can flourish. Here, science has a dual role, namely: first, science is a source of value that supports cultural development; Second, knowledge is a source of value that fills the formation of the nation's character.

In fact, these two functions are integrated with each other and are difficult to distinguish Thus, there are scientific values in the development of national culture that are based on improvement. the role of science. Here is Suriasumantri explaining in detail about these two things:

Scientific Values and National Cultural Development

The development of national culture is essentially a change in culture that is now conventional towards a cultural situation that better reflects national appreciation and goals. The process of cultural development is basically a reinterpretation of conventional values so that values are in accordance with the guidance of the times and the growth of new functional values.

Increasing the Role of Academics

The current state of our society is still far from the stage of a science-oriented society. Even in an educated society, science is still a collection of academic theories that are completely non-functional in everyday life. Thus, it is necessary to increase the role and activities of science which basically contain several thoughts, including: first, science is part of culture and therefore steps towards increasing the role and activities of science must pay attention to the cultural situation of our society. Second, Knowledge is one of the ways to find the truth. Third, the basic assumption of all activities in finding the truth is a sense of trust in the methods used in these activities. Fourth, scientific education must be associated with moral education at the same time. The smarter a person is in the field of science, the higher the moral foundation must be. Fifth, the development of the scientific field must be accompanied by the development of the field of philosophy, especially those related to science. Finally, scientific activities must be autonomous and free from the constraints of power structures.



Based on this, the identification of national cultural development cannot be separated from the development of science. In the current period known as the period of science and technology, our culture is also inseparable from its influence. Inevitably, this factor must be taken into account. Therefore, the study will be focused on efforts to increase the role of science as a source of value that supports the development of national culture. In this case, the essence and values it contains and its influence on the development of national culture will be examined.

Education and culture are a relationship between process and content. That is, education is the process of passing culture in the sense of cultivating human beings. The form of culture that is the content (curriculum) of education is known as knowledge. Because of the breadth of the scope of culture compared to the limitations of time, facilities and educational personnel, for the success of the educational function, there must be a determination of what cultural elements are urgent in education.

Public relations and education are the relationship between the subject and his activities. The more advanced a society is, the more advanced the education that is held. This relationship is decisive. This means that the community will be relatively more advanced if the community is active in fostering education, or the community will be more advanced if the community organizes advanced education.

The relationship between education and culture is the relationship between activities and their content. Education is a process, an institution, an activity. Meanwhile, culture is the content in the process. In comparison, Augus Comte, a sociologist and philosopher, distinguishes the above levels of human cultural development: Three great stages in the defelopment af all human thought: a theological or animistic one, a metaphiysical, and a positive scientific stage.

For Comte, this level is chronological, historical and at the same time means hierarchical value. This means that human beings who are in the era of positive science culture no longer know in the sense of adhering to theological ideas that are considered irrational, because they are not positive like the positive scientific mind.

CONCLUSION

Cultural values are the soul of culture and are the basis of all cultural implications. The human system of life is a concrete reflection of abstract cultural values and supported by physical cultural means. The development of science has become very important in daily life, affecting almost all aspects of human life, including basic needs such as food, clothing, and boards. Science is an integral part of culture and has a mutually influencing relationship with culture. The development of science depends on the cultural conditions of a society and vice versa, science also affects the development of culture. Science contributes to culture through ethical, aesthetic, and logical values. Conventional national culture needs to be reinterpreted to reflect national appreciation and goals, as well as adapted to the demands of the times and the growth of new functional values.

Increasing the integration of science and culture is an important step that must be realized through scientific education that is integrated with moral and cultural education. Society needs to be encouraged to understand that science is an inseparable part of culture, which plays a significant role in discovering truth and developing personality and society



collectively. In addition, the process of developing national culture must reflect scientific and functional values that are in accordance with the demands of the times. Conventional culture needs to be reinterpreted to foster new values that support the development of science and technology, so as to be able to encourage better social and economic progress.

REFERENCE

- Jannah, R. (2023) 'Manajemen Pendidikan Islam Dalam Konteks Teknologi Digital', *Jurnal Cahaya Mandalika ISSN 2721-4796 (online)*, 4(2), pp. 435–443.
- Rabbani, A. (2022, November 4). Pengertian Integrasi Kebudayaan, Unsur, Faktor, dan Contohnya. Sosial79. https://www.sosial79.com/2021/04/pengertian-integrasi-kebudayaan-unsur.html
- Pengertian Integrasi Budaya, Faktor dan 14 Contohnya. (2023, September 6). DosenSosiologi.com Ilmu Sosiologi. https://dosensosiologi.com/integrasi-budaya/
- Muhammad Noor Syam, Filsafat Pendidikan dan Dasar Filsafat Pendidikan Pancasila (Surabaya: Usaha Nasional 1986), 68. Muhammad Noor Syam, Filsafat Pendidikan dan Dasar Filsafat Pendidikan Pancasila (Surabaya: Usaha Nasional 1986), 68.
- Surajiyo. (2010). Filsafat Ilmu dan Perkembangannya di Indonesia. http://perpustakaan.bppsdmk.kemkes.go.id/index.php?p=show_detail&id=2270
- Syam, M. N. (1983). Filsafat pendidikan dan dasar filsafat pendidikan Pancasila. http://ci.nii.ac.jp/ncid/BA71614582
- Wahyudi, M. (2016). Konstruksi Integralitas Ilmu, Teknologi dan Kebudayaan. 6(2), 114 129. https://doi.org/10.54180/elbanat.2016.6.2.114-129
- Bitar, & Bitar. (2024a, April 13). Pengertian Ilmu Karakteristik, Jenis, Aspek, Contoh, Para Ahli. GuruPendidikan. https://www.gurupendidikan.co.id/pengertian-ilmu/
- Gischa, S. (2021, July 28). Fungsi Budaya bagi Masyarakat. KOMPAS.com. https://www.kompas.com/skola/read/2021/07/28/142020869/fungsi-budaya-bagi-masyarakat.
- Peran Ilmu Dalam Pengembangan Kebudayaan. (2017, May 18). Dewan Pendidikan. https://www.dewanpendidikan.com/2017/05/peran-ilmu-dalam-pengembangan-kebuda yaan.html