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EDUCATIONAL DEVELOPMENT OF AFRICA: CHANGING PERSPECTIVES ON THE ROLE OF INDIGENOUS KNOWLEDGE

Abstract: Educators have called for the integration of African Indigenous Knowledge (AIK) into educational curricula particularly at the university level. However, little is known about the perspectives of university students regarding the role of AIK towards educational development. Thus, this study used survey and focus group discussions to examine the perceptions of 125 university undergraduates regarding the role of AIK in educational development in Africa. Findings indicated that AIK enthusiasts are perceived as knowledge-police and bullies propagating divisive scholarship. Approximately 25 percent of participants are not aware of what constitutes indigenous knowledge. The implications of these and other findings are discussed.

Keywords: Africa, development, education, indigenous, knowledge-police, literacy.

Western scholarship is viewed as the panacea for the ills of education in Africa. Such perception is held by scholars who are unaware of the contradictions existing between Western education and the needs of the African society (Ake, 1982, Ukwuoma, 2014). As an illustration, education officials prefer the use of English as the language of instruction in schools in former British colonies. Their preference emanates from the belief that the use of English will improve academic performance and make learners employable in a globalized world (Casale & Posel, 2011; Chou, 1991; Crystal, 1997; Crystal, 2003; Hanson, 1997; Sanmugam & Harun, 2013). Nevertheless, such belief hides the hegemonic nature of English language in Africa. In fact, several studies have found a link between the use of English language for classroom instruction and poor academic performance by students (Alidou & Brock-Utne, 2006; Cleghorn & Rollnick, 2002; Clegg & Afitska, 2011; Criper & Dodd, 1984; Dutcher, 2004; Early & Norton, 2015; Galabawa & Senkoro, 2006; Mlama & Mattered, 1977; Nyika, 2015; Probyn, 2006; Qorro, 2009; William & Cooke, 2002). Consequently, there are calls for reform in language of classroom instruction to cater for diversity and multiculturalism that characterize present day classrooms in Africa (Ukwuoma & Ketsitlile, 2015b).

African indigenous knowledge (AIK) offers similar illustration. Some scholars view the oral component of AIK as repugnant because they are unable to measure it using Western scholarly standards (Emeagwali, 2003). Clearly, such scholars are unaware that AIK and Western education approach knowledge from differing perspectives and *Weltanschauungs*. That is to say, scholars should expect areas of convergence as well as areas of disagreements. To further illustrate, Mpofu (1994) and Nsamenang (2006) indicated that the AIK conception of intelligence gives primacy to the practical, interpersonal and social domains of functioning.

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Such conception of intelligence contrasts with that of Western scholarship, which views intelligence from a cognitive and academic prism (Mpofu, 1994; Nsamenang, 2006).

In a study that used focus group discussions to examine the perceptions of select-indigenous South African women, Durie (2004) found that participants equated health with relationship. For the women, an individual who is sick may consult a physician for healing but they consider a sick person healed only when such individual has a healthy relationship with fellow human beings or is seen making efforts to mend his or her broken relationship(s). From the emic perspectives of the study participants, Durie (2004), concluded that a person is considered healthy only when the person lives in harmony and interacts with his or her neighbours. Obviously, such perception contrasts with what is obtainable in Western societies where one can live by principles he or she shares with his or her conscience in so far as such individual is not violating the right of other people. There are also some areas of philosophical similarities between AIK and Western education. For example, there are times when teachers in both platforms (i.e., AIK and Western education) subscribe to student centred approach to teaching. A study by Ukwuoma (2014) used qualitative interviews to evaluate the teaching philosophical perspectives of select-lecturers in teacher preparatory colleges in the Niger Delta region of Nigeria. The study sought to understand if the lecturers will integrate popular but unofficial languages such as Nigerian creole into instruction to facilitate student engagement. The findings from the study indicated that both lecturers who lean towards AIK and those leaning towards Western education give primacy to student centred teaching. Thus, the study participants indicated willingness to integrate any language into instruction to facilitate student engagement.

Without doubt, African indigenous knowledge systems and methods of knowing guided the African people in various spheres of life prior to the advent of Western education (Levers, 2006; Mpofu, 2006; Mtumngia, 2009; Sarpong, 2002; Tanyanyiwa & Chikwanha, 2011; Zulu, 2006). It is believed in some quarters that such knowledge system is relevant today in spite of the domineering role of Western education. Adherents of such belief are quick to stress the need to construct and reconstruct knowledge to ensure that AIK is not divorced from today's scholarship (Ukwuoma & Ketsitlile, 2015a). As a result, Afrocentric researchers and educators are calling for the integration of African indigenous knowledge systems into educational curricula particularly at the university level. However, little is known about the perspectives of university students, who are expected to learn using such integrated curricula, towards Africa indigenous knowledge. As a result, the purpose of this study was to examine the perceptions of university undergraduates regarding the role of African indigenous knowledge in educational development of the continent of Africa. The following research questions guided the study: (a) how do university undergraduates describe their perceptions regarding Africa indigenous knowledge? (b) what are university undergraduates' perspectives concerning the role of Africa indigenous knowledge in educational development in Africa?

THEORETICAL FRAMEWORK

The theoretical framework of this study draws on critical literacy and post-colonialism. As educational policy makers craft school curriculums, they should understand that education is not neutral, education is multi-faceted and has a political aspect. Clearly, "it is impossible to even think about education without considering the question of power" (Freire, 1987, p.38). Critical literacy and post-colonialism aims to ignite change by calling attention to the idea that schools are sometimes used as avenues for reinforcing vestiges of colonial legacies in Africa

(Freire, 1987; Macedo, Dendrinis & Gounari, 2003; Tracey & Morrow, 2006). Thus, critical literacy and post-colonialism explore sources that facilitate deliberations over existing conditions to drive change (Ukwuoma, 2015b). As a result, it is important for university undergraduates to understand the cultural ideology being promoted by the education they receive.

REVIEW OF LITERATURE

This study examined the perceptions of university undergraduates regarding the role of African indigenous knowledge in educational development. This section of the research report presents a concise review of literature relating to the place of African indigenous knowledge (AIK) in several parts of Africa, and evidence of the role being played by AIK. The place of AIK and Western education will be outlined in the light of globalization (Boote & Beile, 2005). The review will be organized in three sections: (a) overview of African indigenous knowledge, (b) African indigenous knowledge driving socioeconomic development, and (c) African indigenous knowledge and university education in the age of globalization.

Overview of African Indigenous Knowledge

Warren (1991) perceives indigenous knowledge as contrasting with the knowledge generated by universities and research institutes. As such, Warren (1991) wants us to view African indigenous knowledge as the local knowledge that is peculiar to the African society, not knowledge from universities and research institutes in Africa. However, Nwagwu (2007) faulted such perception because universities and research institutes in Africa are working closely with African indigenous knowledge systems. Emeagwali (2014) offers a comprehensive definition of indigenous knowledge as “the cumulative body of strategies, practices, techniques, tools, intellectual resources, explanations, beliefs and values accumulated over time in a particular locality, without the interference and impositions of external hegemonic forces” (p. 1). Concepts like ethno science and citizen science have also been used within the framework of indigenous knowledge to represent layman’s knowledge and how they relate to modern science (Leach & Fairhead, 2002). Indigenous knowledge has also been called local, folk, or people’s knowledge as well as traditional wisdom. Some components of indigenous knowledge are oral, and are passed down from generation to generation through word of mouth and rituals. According to the World Bank (1997), the ability of a group of people to grow their indigenous knowledge, is as important as their financial resource because indigenous knowledge represents a people’s history, crafts and experiences, which can spur improved livelihood. Sarpong (2002) emphasized that knowledge should not be divorced from the cultural context it emanated from because a people’s culture shapes a people’s consciousness. Similarly, Asante (1987) concluded that all knowledge emanates from a cultural background, as such, it is inappropriate to place any form of knowledge above the other. Specifically, Asante (1987) insisted that all cultures and the knowledge systems arising from them, should be respected.

In fact, indigenous knowledge is part of the global knowledge system. Therefore, African indigenous knowledge should be a respectable part of the global knowledge system. However, African indigenous knowledge system seems to be facing the possibility of going out of use due to changes in the physical and social environment of the African landscape (Worldbank, 2015). Another reason that raises a red flag is the perception of younger generation of Africa towards indigenous knowledge. It is believed in some quarters that

Western education, which students are exposed to in schools in Africa, is making students think less of African indigenous knowledge. Asante (1987) indicated that Western thoughts are inadequate to explain all the ways of knowing because it is based on a particular cultural setting, which does not have general applicability. In other words, one size does not fit all in terms of knowledge. Unfortunately, African indigenous knowledge is often disregarded, not only by Western scholars, but also by African scholars (Nsamenang, 1995). There are deliberate attempts to remove contributions made by African indigenous knowledge from documented sources, because most documented sources originating from the West are not written with the context of Africa in mind (Ngara, 2007; Ukwuoma, 2015). Indeed, unscrupulous elements are working to rupture Afrocentric contributions to global knowledge system in the guise that such contributions do not conform to standards set by Western scholarship (Boaduo & Gumpi, 2010; Owusu-Ansah & Mji, 2013). Such undignified action has prompted calls for the creation of Afrocentric databases to preserve African indigenous knowledge (Nwagwu, 2007). Similarly, some postgraduate students of African descent have pointed out the need for foreign authors to include local African examples in textbooks that are sold in Africa (Ukwuoma, 2015a). Perhaps, the time has come for educational policy makers in Africa to work with educators and researchers to reverse such trend. Such policy intervention will fit into “the broader project of restoring dignity to African knowledge, to deracializing the way in which African knowledge has been collected, archived, and used in relation to international debates around indigenous knowledge and its legal protection” (Green, 2008. p.49).

African Indigenous Knowledge Driving Socioeconomic Development

Across Africa, scholars are documenting how indigenous knowledge is used solely, and sometimes in synergy with modern science, to harness local plant and animal resources to drive development. From the famous Rooibos tea in South Africa to Sorghum farming in Ethiopia and traditional tannery, and brewery techniques of Northern Nigeria, African indigenous knowledge is making significant contributions to socioeconomic development (Oduol, 1995; Rampedi & Olivier, 2008; Zaruwa, Ibok & Ibok, 2014; Zaruwa & Kwaghe, 2014). In Ghana and Nigeria, researchers are exploring the benefits of traditional medicine whereas indigenous knowledge is helping Tonga women of south eastern Mozambique become creative knowledge producers (Gerdes, 2014; Nimoh, 2014; Olaoye, 2014). In a multi country study on the application and use of indigenous knowledge in environmental conservation and disaster management, the United Nations Environmental Programme (2008) found that Kenya, South Africa, Swaziland and Tanzania “uses a variety of innovative, effective, and in some cases unique indigenous knowledge approaches to environmental conservation” (p. 33), which drive development.

Indeed, African politicians are collaborating with researchers and experts to harness indigenous knowledge for development. For example, during the Southern African Development Community (SADC)’s Indigenous Knowledge Systems workshop, Meriton (2009) expressed gratitude that experts and political office holders from Botswana, Namibia, Seychelles, South Africa, Zambia and Zimbabwe have found a common agenda in exploring the benefits of African indigenous knowledge. He noted that “indigenous knowledge has emerged as a significant resource in development discussions” (p. 2). Delegates at the SADC meeting pointed out that indigenous knowledge is facilitating agricultural research and poverty reduction efforts in Uganda. They noted that AIK is used to improve the use of resources at the Basin of Lake in Malawi. Additionally, the delegates credited indigenous

knowledge for ideas that led to promoting and exploiting aromatic and medicinal herbs in Kenya and Seychelles respectively. Similarly, Moahi (2010) noted that the New Partnership for Africa Development (NEPAD) has recognized the importance of indigenous knowledge in African development. Clearly, there is an abundance of evidence showing that African indigenous knowledge is driving development in Africa.

African Indigenous Knowledge and University Education in the age of Globalization

Although it is not often recognized, AIK play important role in the global knowledge economy. Such lack of recognition illustrates what Hyper-globalists consider a deprivation of indigenous people in favour of multinational corporations under globalization (Held, McGrew, Goldblatt & Perraton, 1999; Milana, 2012). However, Dreher, Gatson, and Martens (2008), consider globalization as the capable of facilitating integration of countries in many different spheres to facilitate development. Thus, one would expect scholars to view the contributions of AIK as positive input in the global knowledge economy. In Africa, universities and other institutions of higher learning should champion such cause. Moahi (2010), observed that libraries and institutions of higher education in Africa has a pivotal role to play in advancing Africa indigenous knowledge into global knowledge economy. To play such a crucial role for African Indigenous Knowledge, Moahi (2010) challenged African universities to bring about a positive perception of AIK as a credible and integral component of instruction. According to Moahi (2010), African universities can play such role by integrating AIK into their curricula. Be that as it may, Mohamedbhai (2013) perceive African universities as “having a poor record of achievements in research, innovation and community engagement” (p. 2) to take on such an important task. Mohamedbhai (2013) implored African universities to adopt a “holistic and multi-disciplinary approach” (p. 2) to AIK if they want to take up such important mandate.

However, it must be noted that African universities are not doing badly. They have established many resource centres to promote indigenous knowledge. In Nigeria for example, the African Resource Centre for Indigenous Knowledge located at the University of Ibadan is one of many centres in many universities in Nigeria. There is also the Centre for Scientific Research, Indigenous Knowledge and Innovation located in the University of Botswana. Similar centres are in many universities across African countries.

METHOD

Design and Instrument

The purpose of this equal status mixed research was to examine the perceptions of university undergraduates regarding the role of African indigenous knowledge in educational development. Thus, the researcher developed a survey instrument entitled University Students' Perception of African Indigenous Knowledge Questionnaire (USPAIK-Q) requiring responses on a five-point Likert scale. Focus group discussions were held after the survey because the researcher sought elaborations and clarifications from the respondents regarding their survey responses. As such, the rationale for mixing was complimentary (Johnson & Christensen, 2012)

Participants and Setting

The survey respondents were 125 university undergraduates majoring in education, engineering, and social science courses. They were enrolled in several sections of an advanced academic writing and research course at two public research universities in Botswana and Nigeria respectively. A total of 28 of the students were in their third year whereas the remaining 97 were in their first and second year of university education respectively. The participants in the focus group discussions included 40 students who were purposively selected from the surveyed sample because they indicated willingness to engage in further discussions regarding African indigenous knowledge. The sample also noted in the survey instrument that they are well versed in issues relating to AIK and have previously engaged in similar discussion. As such, they constituted an “information-rich source” (Patton, 1987, p. 58), capable of providing answers to the research questions of this study. All the participants ranged in age from 17 to 25 years and identified themselves as Africans. A slight majority was female ($n = 75$) with male in the minority ($n = 45$)

Data Analysis

A sequential mixed analysis (SMA), which involved using both qualitative and quantitative methods of data analysis in sequence, was used (Onwuegbuzie & Teddlie, 2003; Tashakkori & Teddlie, 1998). Simple frequency count and percentile distribution were used to analyse quantitative data from structured survey responses to USPAIK-Q, whereas transcripts from focus group discussions were coded and categorised using the framework proposed by Bogdan and Biklen (2007). The analysis process began with quantitative data followed by qualitative data in an iterative manner. Both qualitative and quantitative data were compared and contrasted to check how they complemented each other in answering the research questions as well as addressing the purpose of the study.

RESULT

Quantitative data showed that approximately 25% ($n = 32$) of respondents have no knowledge of what constituted African indigenous knowledge (AIK) and unable to pinpoint the role it will play in educational development in Africa. About 10% ($n = 13$) professed the belief that African indigenous knowledge ought to be in text books to qualify as knowledge system, and that it is only then they can determine its role in educational development in Africa. An approximated 15% ($n = 19$) of the respondents indicated that knowledge is uniform and can play positive or negative role in educational development. However, 50% ($n = 63$) of the respondents indicated that they perceive African indigenous knowledge as the measure and assessor of what they learn in schools. Their reasons ranged from giving importance to the developmental needs of Africa and the idea that Africa is the continent where majority of them will live upon completion of their university education. As such, knowledge acquired from university education must be relevant and productive to the African society. They noted that AIK has many important roles to play in educational development in Africa. Thematic analysis of transcripts from focus group discussions produced five themes that were subsumed by two broad themes namely *negative* and *positive*. Table 1. Shows the themes, formulated meanings and selected examples of statements of university undergraduates’ perceptions regarding African indigenous knowledge and their perspectives on the role of AIK in educational development in Africa.

Table 1: Result of Qualitative Component of Data Analysis

Themes	Formulated Meaning	Sample Participant Statements
Unaware	Lack of understanding of African knowledge systems and methods of knowing, which guided Africans prior to the advent of Western education	<i>Is Witchcraft included? I am not sure but does Africans really have their own knowledge? I don't know how to figure out the role in educational development, I don't get it.</i>
Codification	Idea that whatever constitutes knowledge must be coded and organized	<i>Knowledge should come in the way we learn in school now, say, like through textbooks, reading apps and the Internet. Until that happens, it is tough to say the role of IKS in educational development.</i>
Uniform	Belief that all knowledge is the same and that classifications such as African indigenous knowledge, and Western education are unnecessary	<i>No distinction in knowledge, it can play positive or negative roles. Terrorists get religious training on how to kill people, which is knowledge playing a negative role, teaching people the idea of live-and-let-live is knowledge playing a positive role in educational development.</i>
Centrality	The belief that African indigenous knowledge is the pace-setter in the education of Africans	<i>African indigenous knowledge is the foundation of my journey as a student. Its role is to offer credible lens for assessing Western education, which has dominated the African educational landscape</i>
Identity	The idea that African indigenous knowledge is a tool for self-identification for Africans	<i>I mean that African indigenous knowledge is what defines me as a guy from Africa. Guidance, yes, it should play a role in guiding the African educational path</i>

DISCUSSION

Acknowledging the Critical Role of AIK in Education

This study examined the perceptions of university undergraduates regarding the role of African indigenous knowledge in educational development. The first research question was concerned with how university undergraduates describe their perceptions regarding Africa indigenous knowledge. The second research question sought to understand the perspectives of university undergraduates concerning the role of African indigenous knowledge in the educational development of Africa. Half of the participants have positive perception regarding African indigenous knowledge (AIK). These participants believe that AIK represents the first step any African student should take in acquiring knowledge. Specifically, they view AIK as the index to determine other knowledge they acquire as students. Therefore, they see AIK as capable of playing important roles in educational development in Africa if properly harnessed. Such perception regarding AIK and perspectives on its role in educational development in Africa concurs with views already expressed in the literature. As such, this finding did not break any new ground because critical literacy educators and postcolonial scholars have noted that AIK is critical to education as shown in the literature review section of this study.

Questioning AIK and Perception on Education

Some study participants who jostled from questioning AIK to the belief that knowledge should be coded, also mirror what is in the literature. Without doubt, some components of AIK are oral and are passed down from generation to generation through word of mouth. Perhaps, that is why Emeagwali (2003) noted that some scholars detest the oral component of AIK because they are unable to measure it. However, a section of the study participants appeared to be representative of the generation of young Africans who do not subscribe to designating and classifying knowledge. They believe in the uniformity of knowledge and denigrate distinctions such as African indigenous knowledge and Western education as unnecessary.

As observed by a 24 years old male participant “Why do we have to see it as African indigenous knowledge? Do I have to be bullied into such knowledge because I am African? Knowledge distinctions like that presupposes the existence of Asian, Hispanic, White or Red Indians’ indigenous knowledge, it sounds like nonsense to me”. The participant pointed to associations like doctors without borders to show that knowledge is one and should not be demarcated. “When doctors are called into war zones or refugee camps to treat people, they do not treat patients using the indigenous knowledge of their tribe or country of origin, they treat patients in accordance to world medical standards, we can do like that in education”. Another female participant who is 19 years old noted that “my Facebook friends are interested in learning what we do here, I am also interested in learning what they do in their countries; this idea of African indigenous knowledge is old fashioned”. The participants’ perceptions and perspectives regarding African indigenous knowledge seems to question the way education is perceived through the lens of AIK. The perceptions of these members of a new generation of Africa seemed to mirror new literacies or new knowledge(s).

Educating Learners of Diverse Backgrounds

Fafunwa (1994) defined education as the totality of ways a child develop capabilities or various forms of behaviours that are of positive value to his or her society. Fafunwa (1994) emphasized that education is how a people or society transmit their culture to upcoming generations. However, education is viewed differently today by young adults of 21st century who can hardly fit into the classification of *a people* or *a society*. Although all the participants in this study identified themselves as Africans, many of them hold multiple citizenships. As such, they also identify with the indigenous knowledge systems and ways of knowing of people in countries in other continents. A 24 years old female participant noted that “this sounds like what my father would say, it is like policing knowledge, so when I go back home in the US, I will tell my friends that I have a different kind of knowledge called African indigenous knowledge? I attended primary and high school with them before coming home, you see, I call here home, I also call the US home, come on, my friends will tell me to quit tripping”.

LIMITATIONS

This study used a convenient sample. As such the perceptions of the respondents may not be representative of the perceptions of other students in their universities. Such limitation was beyond the researcher’s control because questionnaires were distributed to a representative sample of the student population in each university, however, only 125 students returned completed questionnaires. Participants in the focus group discussions were survey respondents who indicated willingness to engage in further discussions regarding African indigenous knowledge. Specifically, respondents who reported that they are knowledgeable

in African indigenous knowledge were admitted into the focus groups discussions. Their admission may have constituted a limitation because it was not within the scope of this study to measure each discussant's level of knowledge of African indigenous knowledge before admitting them into the focus group discussions.

Finally, all the participants were under 25 years of age as at the time data were collected. As youngsters, who may not be aware of the pillage of African knowledge systems perpetrated by European colonialists, the entire population of this study may have constituted a limitation beyond the control of the researcher.

IMPLICATIONS AND RECOMMENDATIONS

Classroom Instruction: Integrating African Languages and History

Majority of participants in this study described their perceptions regarding African indigenous knowledge (AIK) as positive. They hold the perspective that AIK should be central to the education they acquire as university undergraduates. However, further findings from this study showed a provocative mismatch among what students learn in universities, the realities surrounding them, and the history of Africa on colonialism. Thus, there is need for a reconceptualization of what African indigenous knowledge (AIK) means to African students. As such, educational policy makers in Africa should work with university administrators to embark on a systematic integration of AIK into university curricula, particularly that of pre-service teacher candidates. Similarly, university lecturers should integrate African history and African languages into their teaching. Although some schools in some African countries have integrated African languages into their curricula, majority of their students are yet to be exposed to African colonial history and how Western education has evolved in Africa. As coaches and facilitators, university teachers should help students to understand that African languages embody African identity and indigenous knowledge. As such, students should look beyond Portuguese, French and English languages as they search for identify.

Primacy to Whatever Constitutes Knowledge

As people from an oral tradition, universities in Africa should tailor their educational policies to reflect the idea that knowledge can also come in oral form. Primacy should be given to whatever constitutes knowledge to a people irrespective of codification. Thus, university undergraduates should be helped to understand that it is not mandatory for knowledge to be coded. Most importantly, educational policy makers should understand the psychology of most university undergraduates of this digital age. They view education and schooling differently. Perhaps, because they are born into an internet age controlled by the same forces that plundered and are still plundering Africa. These students are yet to see the subtle role of schools, educational curricula and digital gadgets in the process of indoctrination. Policy makers should craft policies that will help students understand that colonial incursions were used to disrupt African indigenous knowledge systems and that on the contrary, the disruption has become, not only subtle, but also invisible.

Directions for Future Research

Future research on evaluating the perspectives of university undergraduates regarding African indigenous knowledge should take a multidisciplinary dimension. First and foremost,

this study should be replicated in other countries in Africa. Secondly, researchers should use poor academic performance as outcome variables to evaluate the impact of African indigenous knowledge on university undergraduates. Findings from such studies may provide an empirical base to point the way for undergraduates to understand that African indigenous knowledge aims for all-round learner development. As such, it may be of pivotal importance to fully integrate AIK into educational curricula not only in the universities but also at all levels of formal education.

CONCLUSION

Some of the findings from this study indicate a change in the way AIK is perceived. The changing perspectives represent an initial step indicating that African indigenous knowledge (AIK) enthusiasts are perceived as knowledge-police. Select-university undergraduates holding such perspective consider distinctions like African indigenous knowledge and Western education unnecessary. They view the so-called knowledge-police as bullies who propagate divisive scholarship. As a result, while it is recommended that university policy makers integrate indigenous knowledge into curricular contents, it might also be necessary for universities to offer such courses as electives. Indeed, students should not be compelled to study African indigenous knowledge systems if they are not interested in such contents because learning thrives only when the subject-matter tickles the learners' interest.

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