Integrating riddles as instructional resource in the Competency-Based Curriculum for Early Years Education in Kenya

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Abstract
The introduction of the Competency-based curriculum in Kenya has had far-reaching changes in the teaching and learning of basic education in Kenya today. Teachers, for instance, required to adopt innovative methods of content delivery in order to enhance learners’ mastery of the content. Such innovative practices have seen teachers deploy various locally available materials as instructional resources in their classrooms. While riddles have multiple functions to play in society, this paper analyses benefits that learners will obtain in using riddles as instructional resources in Early Years Education in Kenya. Primary data for analysis was obtained from a field study conducted among learners in purposively sampled primary schools in Manga sub-county, Nyamira County. Pre-observation interviews, lesson observation and post-observation interviews were used in data collection. Thus, the authors examine various competency-based skills embedded in riddles such as creative and critical thinking skills, cognitive skills, numeracy skills, collaborative skills, and environmental awareness skills. The article concludes that riddles enhance learners’ competencies and therefore there is need to embrace them as instructional resources in Early Years Education in Kenya.

Keywords: Competency-Based Curriculum, early years education, instructional resources, integration, riddles

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Public Interest Statement
Research on subject integration in Early Years Education in Kenya is at its nascent stage. Education experts and scholars alike are at the forefront in examining best practices in subject integration and how it could be deployed in the Competency-based curriculum, skills and experiences that will accrue from integrated teaching and learning, and how to evaluate learners in an integrated instructional mode. This article argues for the integration of riddles as instructional resources in the Competency Based Curriculum by foregrounding the competency-based skills that learners will obtain from the utilization of riddles in teaching and learning among children in early years of instruction in Kenya.

1.0 Introduction: Review of Related Literature and Theory
1.1 Integration in Subject Area Teaching and Learning in Schools
Subject integration in teaching and learning is anchored on Gestalt psychology. John Dewey, one of the earliest Gestalt psychologists, advocated for the need for education to be a process of continual growth of social and individual experiences both in and outside school. Dewey’s view, thus, provides a firm foundation for integrated learning in the education system. In education, integration produces two practical realities. First, the learner is seen as a whole in need of meaningful learning experiences reflecting this “wholeness.” Second, learning is not seen as simply a linear process with new ideas being added onto existing ones. Instead, it is an interactive process aimed at rebuilding and transformation (Harrell, 2010). Thus, an integrated learning is learner-centered as it engages learners, improves learning experiences and increases learners’ interest in learning. Higher-order thinking skills, cooperative learning, and consideration of other learners’ values are emphasized in integrated learning. An integrated curriculum affords learners the opportunity to notice the meaning, purpose and gain a deeper understanding of instructional material (Watkins & Kritsonis, 2011). Integrated learning allows learners to link their experiences in the classroom to the real world and make sense of experiences from their lives.

Campbell and Henning (2010) acknowledge that knowledge today is becoming more and more integrated, calling for more integrated approaches to teaching and learning in schools. Teachers, for example, are continually looking for ways to engage learners and deepen their understanding of content in various learning areas. Subject area integration is one of the ways to accomplish this goal. Bolak, Bialach, and Dunphy (2005) argue that learners get the opportunity to discover new knowledge and apply that knowledge across different subject areas. Gains in achievement among learners are noticeable, especially when learners are engaging in hands-on and practical activities such as riddling. Becker and Park (2011) posit that achievement gaps among learners are narrowed with the use of integrated learning. When learners have the opportunity to make connections between their everyday social experiences and the content in the classroom, their knowledge will expand and be much more meaningful to them. Integration focuses on the inter-relatedness of subject areas and helps learners to transfer their learning to other settings (Applebee et al., 2007). It also builds upon community and cultural context in the learning processes. Integration recognizes that early years education includes reading, writing, listening, speaking, social studies, mathematics, science and technology, physical education, music, and visual arts. Thus, integrated teaching and learning processes enable learners to acquire and use basic skills in all content areas and to develop positive attitudes for continued successful learning throughout their education. Classroom lessons that incorporate integrated curriculum have witnessed positive learning outcomes, improved self-confidence and enhanced critical thinking skills as learners make connections of the subject area’s content to the real world.
1.2 Theorizing the Interpretation of the Riddles

A deconstructive reading of selected riddles formed the interpretive nexus for this article as it sought to appreciate the fluidity of language, and depict the diversity in meaning of the riddles and show how riddles are beneficial to learners in Early Years Education in Kenya. Jacques Derrida argues that deconstruction involves a careful teasing of warring forces of signification in a text, in this case, a riddle. These forces of signification are embedded in the language of the text. Indeed, deconstruction holds that language in any work of art is elusive and therefore keeps on attracting different interpretations. Derrida observes that there exists no universal or single interpretation to a work of art since the same work may be interpreted differently by different scholars.

This article espouses one of the key postulations of Derrida in deconstruction theory. Derrida argues that a text is admissible to a multiplicity of meanings that come about due to different interpretations of the same text. This implies that it is possible to generate a variety of meanings from one a single riddle as a text. The interpretation of a riddle involves a careful examination of the language used because one needs to break down the various components of the same language, what Derrida (1967) calls “a careful teasing of warring forces” in order to come up with an interpretation. For instance:

**Challenger:** Enyomba yane ngosoa inche bweka
My house that I enter alone

**Response:** Egekoroto
A pair of shoes

The enunciation of this riddle seems simple and straightforward: A pair of shoes. A careful examination of the language used in the riddle, however, yields another meaning beyond the one singled out here. Of particular interest is the use of pronouns and adjectives in the riddle. On the one hand, the riddle makes use of the possessive pronoun “yane/mine” and the personal pronoun “inche/I” while one the other hand it uses an adjective “bweka/alone”, all requiring close scrutiny in the interpretative process because they provide possible clues to an additional meaning of the riddle.

The first part of this interpretation process requires us to identify the signifier in the riddle. Both pronouns - possessive pronoun “yane” and the personal pronoun “inche” - in the riddle are key in the signification process and provide the necessary clue to the signifier. To this end, the riddle points to an individual member in the society. The second part of the interpretation process requires us to identify the object of signification. In the riddle, the object of signification is “enyomba/house”. The third part requires us to identify the action being undertaken by the signifier to the object to complete the signification process. The action is denoted by the verb “ngosoa/enter” as predicated in the riddle, which is finally revealed as “a pair of shoes”. Thus, the riddle symbolically points to an individual and his/her action as the signified. The possessive pronoun “yane” in the riddle denotes ownership, which completes the signification process. All these shows that riddles play an important role in enhancing learners’ language proficiency.

It cannot be gainsaid that the strength of the Abagusii people was founded on communal welfare as is embedded in these two riddles:

**Challenger:** Omwana one oyomo ntamobwati tinkoragera.
If I can’t have one of my children I can’t eat

**Respondent:** Orogena N’ensio
A grinding stone and its surface

**Challenger**: *Abana bane batato, oyomo ataiyo babere tibayokora meremo*

I have three children, if one is absent, two cannot work

**Response**: *Amaiga y’okorugera riko*

The traditional cooking stones

The two riddles make use of children as symbols in the signification process. The first riddle makes use of the singular form of the child “*Omwana*” while the second riddle the plural form “*Abana*”. In the two riddles, the functionality of the children is predicated on pairs and if one of them is missing, the remaining children cannot function. The enunciation of the first riddle means a grinding stone and its surface, while the second riddle means cooking stones. There is more that goes into these two riddles in terms of their signification than just their perceptive meanings. While the first part of the signification process in the two riddles is anchored on pairing the children, the second part is nested on their functionality. Implying that failure to recognize the pairing translates to failure to recognize their ability to function as a unit. Thus, though in pairs, the children function as a unit and succeed collectively. The functional unity exhibited among children in the two riddles foreground collective existence in society. The centrality of communalism is further underscored in this riddle:

**Challenger**: *Etera abwo, nainche ingetere aiga toboyie magokoro*

Pass there, I pass here we dress our grandmother

**Respondent**: *Chindigi*

Rafters

This riddle underscores the essence of people coming together in order to undertake a specific task such as solving a problem or a misfortune. *Magokoro* (grandmother), in this riddle, symbolizes a task or problem that needs attention from everyone. Grandmothers are not only darlings of many but are also accorded special attention and care due to their advanced age. The use of the matriarch conjures the image of the extended family where she is the towering figure. The extended family unity and wellbeing is dependent on the willingness of each member playing their roles effectively just like *Chindigi* (rafters) contribute to the strength of the house. This further indicates that the strength of the society is based on collective action as opposed to individualism, which is egocentric. This fosters the spirit of collaboration and cooperation among learners.

2.0 Scope, Materials and Methods

2.1 Scope and Delimitation

The use of riddles in teaching and learning in primary schools in Manga sub-county, Nyamira County, constituted the primary source of data for this article. Expectations for this research were not simply on the use of riddles in teaching and learning general language skills. Rather, the focus was on the use of riddles as instructional resources in various subject areas. The goal was that by drawing and synthesizing meaning from multiple riddle texts, content knowledge of various subject areas would increase (Ciecierski & Bintz, 2015).

2.2 Materials and Method

This article proceeds from the inquiry paradigm of constructivism. Instead of beginning with a deductive framework, like Collier’s and Nolan’s (1996) work, the authors’ desire was to understand how learners’ and teachers’, as participants, constructed reality (Shadish, 1995).
Since constructivism views reality as being relative and multiple as a result of varying social and contextual factors (Lincoln, 1990), it captured the essence and goals for our research. The authors found it plausible to employ this naturalistic inquiry paradigm. The research design was anchored on a case study of Ekegusii riddles as it is a preferred choice for answering “how” questions (Yin, 2003).

Collecting qualitative data best fits the ideals of the constructivist framework (Lincoln, 1990). Data were collected by conducting interviews and observations of the actual teaching and learning of lessons in a classroom. This involved pre-observational interview, lesson observation, and post-observational interview. Audio recording was used in data collection during pre-observation and post-observation interviews. Shortly after pre-observational interviews, a 35 minute lesson involving the integration of riddles in teaching and learning was observed. Data collection during this period involved observation notes. After the lessons were completed, learners and teachers were taken through post-observation interviews. The audio recordings were transcribed shortly after each interview. A combination of inductive and deductive themes were used in data coding while a cross-case analysis was used to identify broader themes and highlight complex ideas (Yin, 2003).

3. Results, Discussions and Analyses
3.1 Competency Based Skills embedded in Riddles
Like other communities in Kenya, Abagusii riddles are easily distinguished from other genres of Literature by their formulaic nature and brevity. The formulaic nature takes the form of a quasi-question and answer format which listeners are required to unravel by deducing what is embedded in the veiled language. Strikingly, the ‘question’ is not always an interrogative but a statement. Listeners are presented with an allusive sentence referring analogously to a certain object, which they should then try to identify. The analogy is predicated on images drawn from the immediate context, phenomena or situation rather than in puns or just words. Often the riddle is in the simple form of a statement referring to a well-known object in the real world. Take for example these riddles:

Challenger: Chieng’ata bwengatire gochia echiro.
The one who starves has starved himself to the market.

Respondent: Emonyo
An ant/ safari ant

Challenger: Omosongo nya riso rimo.
A one-eyed white man

Respondent: Esindani
Niddle

In order to give correct answers to these riddles, listeners are required to rely on their cognitive skills to identify objects predicated in the referential statements and equate or approximate them with objects or situations in the real world. At times, riddles require a double enunciation process to be solved because the analogy in the initial statement may not be obvious to listeners. Listeners, therefore, should identify the salient feature(s) of the signified object or situation(s) mentioned, and then go on to identify an object in the immediate environment with similar features. Examples of such riddles include:

Challenger: Kaa gentoki kegotara mogaso na botuko
That which walks both day and night
Ekegusii riddle, with a few exceptions, is a short utterance which may be in plain language or language that is poetic. Such a statement calls for a response which may be a single word or an utterance like the riddle statement itself, thus:

**Challenger:** *Tata ogure roche n’egoti*
My father has fallen into a river with his coat

**Respondent:** *Omobombo*
A banana stock and its leaves

A response to a riddle of this nature is meant to be discovered by taking into account clues that have been provided by the interlocutor and link them to the immediate environment. It requires respondents use their perceptive skills to recognize similarities of the situation, character, or behavior in the statement and its answer. But there are also other cases in which the analogy involved is not of meaning but of a sound in the form of onomatopoeia:

**Challenger:** *U-u-u-u-u….*
**Respondent:** *Omosunte*
Darkness

**Challenger:** *Aa…to!*
**Respondent:** *Oboterere*
Sludge

**Challenger:** *Ndiiiiiiii!
Respondent:** *Ritimbo*
A beetle

All these riddles require respondents to draw analogies of sounds produced and relate them to their meaning as answers. Quite often, the answer is a simple one-word reply, but occasionally longer forms involving tonal and rhythmic correspondence are given as answers. Riddles cut-across every sphere of the natural and human life. An understanding of the point of a riddle often depends on the type of knowledge embedded in the riddle, thus:

**Challenger:** *Chieng’ata bwengatire gochia echiro.*
The one who starves has starved himself to the market.

**Respondent:** *Emonyo*
An ant

This riddle lampoons certain human vices in society such as self-centeredness and callousness. The image of an ant is central in the signification process. First, ants are regarded as the most hardworking insects necessitating the simile ‘as hardworking as an ant’. They are always portrayed as dedicated and determined to succeed in any undertaking. And second, ants are known to eat very little food keeping the rest for the unforeseen future. Thus, they eat that
which makes them barely survive. No wonder they are very thin as a result of hard work which is not congruent to their eating habits. By equating human behavior to that of ants, the riddle not only foregrounds unbecoming human vices in society but also questions the essence of human actions that negate their wellbeing. Therefore, the riddle teaches learners on virtues and warns them of vices such as selfishness in society.

Most riddles exhibit a semantic fit between the riddle and its response. Some of the figurative elements involved are straightforward enough for all to see, such as:

**Challenger:** *Ekenya-magoro ane geikaransente ekenya-magoro ane igoro*

A four-legged seated on a four-legged.

**Respondent:** *Ekemoni*

A cat

The imagery in this riddle is grounded on an item with four legs. The riddle statement, put differently, is asking, what is that which has four legs and sits on another item which has four legs too? A cat is the straight answer because it’s the common domestic animal which prefers sitting on chairs or tables when not in motion. Noteworthy is the fact that the depth of the figurative expression differs from riddle to riddle, being more transparent in some and less so in others, thus:

**Challenger:** *Tata ogure roche n’ egoti*

My father has fallen into a river with his coat

**Respondent:** *Ritoke n’ Omogombo*

A banana stock together with its leaves

This riddle is not straightforward to the respondents because of the lack of congruence between the image and its referent. The connection between the image and the accepted response which is “A banana stock together with its leaves,” is far from being transparent. The image and its referent are spatially removed and distanced by the symbolic opposition between human being and the farmland. Despite the fact that respondents are expected to know and remember the correct answer to riddles such the one above, there exists a window in the competitive riddling process which not only facilitates recall but also allows for consultations with the other participants in the group among other logical possibilities in order to come up with the correct answer.

Riddles are often based on critical observation of the immediate environment. This includes the physical environment, human society, animals and other living organisms among others. This kind of knowledge can be acquired from either the riddle or the answer to the riddle. Children are expected to recall, name and identify various items in their surrounding both in the natural and human spheres of life. This is further enhanced by riddles that specifically require respondents to identify and mention as many names from these two spheres as possible. Take for example the following riddles:

**Challenger:** *Nkomo toiboire ko tinanya komoentania*

We are born together but have never gone past him

**Respondent:** *Etuka*

Hair

**Challenger:** *Kaa mogaka ki ogotengera mwaye osiomeria gesieri naenda oirana?*

Which old man keeping vigil in his house always peeps at the door then
Correct responses to all these four riddles require respondents to recall names of various parts of the human body. Ultimately, correct responses remind learners of names of various parts of the human body. By naming parts of the body, children are also learning about the functions of such parts. This is an important contribution to a child’s education, which in turn gives them head start in science education in Early Years Education. The association of objects in riddles to their corresponding referents in the natural world not only shapes but also enhances children’s environmental skills. The following example will serve to illustrate this:

Challenger: Kaa gentoki kenga egari y’omeroro
That which is like a train
Respondent: Enyongore
A millipede

A response to this riddle is grounded on the child’s environmental awareness and ability to attribute characteristics of the item in the riddle to those of its referent in the immediate environment. A train and a millipede have several features in common which include having divisions on their bodies, moving slowly, negotiate curves with relative ease, and while a train has several wheels on both sides of its body, a millipede has several legs on both sides of its body. The child’s ability to link the known object {egari y’omeroro (train)} with the unknown referent {enyongore (a millipede)} is crucial to arriving at the correct answer. This forms an important contribution to children’s perceptive skills.

Children’s environmental awareness is enhanced by riddles requiring them to be conversant with a variety of vocabulary items in their immediate surrounding such as names of animals, trees, and artifacts among others. A few examples will illustrate this:

Challenger: Kaa mote ki ogotoroka?
Which tree that sparks
Respondent: Ekebriti
A match stick
Challenger: Momura okorabia okona gotera
A lad slashing while singing
Respondent: Amagasi
A pair of scissors
Challenger: Omosongo obwatire enyigo
A Whiteman held by the waist

**Respondent:** *Egekombe*
A cup

Responses to all these three riddles form addition in terms of vocabulary to the learners’ repertoire. This underscores the fact that riddles do provide the means through which children muse and apprise themselves with changes in the immediate surrounding and for expressing shades and nuances of meaning of new items around them. Riddles provide children with opportunities to play phonetic, morphological, grammatical and semantic games as they exhibit a variety of linguistic expressions and structures in language. Take for example the following riddles:

**Challenger:** *Indiiiii! Bosongo maate
Indiiii! Down town*

**Respondent:** *Egari*
A vehicle

**Challenger:** *Ndiiiiii!
Respondent:** *Ritimbo*
A beetle

The structure of these two riddles takes an onomatopoeic stance as they imitate sounds produced by the objects implied in the riddles and enhances learners’ environmental awareness. Referents in the riddles are a vehicle and a beetle respectively. Since there is no onomatopoeic English equivalent of *Indiiiiii!,* no translation is availed for the same. However, we can only make inferences of the sound produced by vehicles and beetles while in motion. It is important to note that riddles delight in ambivalence as strategies aimed at misleading and misdirecting participants from the right answers:

**Challenger:** *Are egetambaa toriere chinsobosobo
Spread a shawl we eat goose berries*

**Respondent:** *Erioba na Ching’enang’eni
Stars in the sky*

There exists no direct semantic congruence between elements in the riddle and the corresponding response. A shawl and goose berries are not items in the same family. A riddle of this nature, therefore, requires participants to interpret it by way of association in order to make sense of it. Listeners will engage with associations covertly or overtly as they ponder on the enigmas inculcated in the riddle’s language and the way disparate ideas and structures are put together in the riddle. In this way, riddling provides children with a platform to hone high-order skills such as analytical skills and learn to express many complex ideas and sense relations.

Comprehending the basics of numbers as a vital step for future understanding of more complex mathematical operations and topics is one of the key aspects that the competency based curriculum emboldens. Learning to identify numbers, count, and understand quantity are a few of the essential concepts in understanding the basics of numbers. Riddles provide one such opportunity to increase children’s sense of numbers as they participate in riddling activities. The following examples will illustrate this:
Challenger: *Mwana one oyomo ntamoberegeti tindi koragera*
   My one child who if I do not carry him on my back, I will not eat

Respondent: *Orogena n’ ensio*
   The grinding stone and its surface

Challenger: *Enyomba yane nya-gesigisa kemo*
   My house with one pole.

Respondent: *Oboba*
   Mushroom

Challenger: *Chisani ebire chireng’aine*
   Two equal plates

Respondent: *Igoro na Inse*
   Heaven and earth

Challenger: *Enyomba nya-tirisa isato*
   A house with three windows

Respondent: *Orwembe*
   A razor blade

In these three riddles, learners are introduced to identifying numbers; oyomo/one, ebire/two and isato/three. This one-to-one identification of numbers helps learners acquire foundational numeracy skills, emphasized in the competency based curriculum. In the same vein, learners are also introduced to various mathematical operations through riddles as shown:

Challenger: *Abana abamo batato, oyomo ataiyo babere tibagokora meremo*
   Three siblings, if one is absent, the remaining two won’t work

Respondent: *Amaiga y’ okorugera riko*
   Three cooking stones

In this riddle, learners are introduced to subtraction (take away), one of the four mathematical operations. That is; three take away one remains two. In this way, riddles not only have the capacity to expand the learners’ knowledge of numbers but also introduce learners to mathematical operations. The net effect of using riddles is that it gives learners a strong sense of numeracy skills while repeated experiences of working with numbers in riddling activities will help build learners’ understanding and fluency with numbers.

3.0 Conclusion

The data on riddles gathered so far demonstrates that the competency-based system of education offers learners differentiated and innovative learning experiences which ensures that they are equipped with knowledge, skills, attitudes and values to enable them thrive in the 21st century. In the course of learning, the curriculum emphasizes that learners should acquire skills such as communication, collaboration, critical thinking, creativity, problem solving, and imagination among many others. Analyses in this article have shown that learners are capable of achieving objectives of the competency-based system of education as a result of integrating riddles in early years education. The article has shown that riddles are grounded on varied content drawn from the natural world, animal world, crops, numbers and the human world. Enunciations of these riddles require participants to think broadly and be proficient with the plethora of things in their surroundings. Thus, riddles enrich learners’ environmental awareness skills, sharpen their imaginative, creative, and reasoning
skills. Riddles also go a long way in developing the learners’ perceptive, cultural and social senses making them more open minded as they embrace virtues such as co-operation and teamwork. Based on these factors, there is need to embrace riddles as instructional resources in the teaching and learning of children in early years education in Kenyan schools in order to enhance the realization of the Competency based curriculum’s emphasis on context-based learning.
References


