Information literacy and the material objects of the Kente-weaving landscape

Franklin Gyamfi Agyemang *
St. Joseph's College of Education, Bechem, Brong-Ahafo, Ghana

Nicoline Wessels
Department of Information Science, University of South Africa, Pretoria, South Africa

Madely du Preez
Department of Information Science, University of Pretoria, Pretoria, South Africa

*Corresponding author: Franklin Gyamfi Agyemang can be contacted at: gyamfiagyemang@joscobechem.edu.gh

Abstract

Purpose: This paper aims to examine the ways becoming information literate relates to the material objects in the Kente-weaving landscape.

Design/methodology/approach: An ethnographic research design was adopted wherein data was collected using participant observation and a semi-structured interview with 24 participants through their roles as either master weaver, junior weaver or novice weaver. Thematic analysis through a practice-based approach to information literacy frames the analysis of this study.

Findings: Information literacy relates to the material objects in terms of developing the know-how knowledge regarding the Kente-weaving tools used as well as what constitutes the quality of Kente fabrics.

Practical implications: Information literacy goes beyond having theoretical knowledge of the material objects of an information landscape. It is practical, not merely knowing the names of the material objects and what they are literary used for.

Originality/value: To the best of the authors' knowledge, this is the first study that contributes to the understanding of how information literacy relates to material objects in the craft workplace.

Keywords: Information literacy, Kente, Hand-woven fabrics, Material objects, Workplace landscape

Introduction

Information literacy manifests in various disciplines and vocations, including academic and work-related fields (Hicks *et al.*, 2022). The context matters when considering the sociocultural perspective of information literacy (Lloyd, 2010a, p. 156). The sociocultural perspective of

information literacy requires a deep understanding of the intricate cultural, social and collaborative processes, activities and arrangements that shape information and its usage in a given setting, such as the sayings and doings, rather than a mere development and application of information skills (Lloyd and Williamson, 2008, p. 9; Lloyd, 2010a, p. 1).

The sociocultural perspective of information literacy is defined as a way of knowing what constitutes an information landscape by drawing meaning through interactions, situated processes and experiences with all the modalities of information that are sanctioned in the context of the information landscape (Lloyd, 2006a, p. 570, 575, 578). The information landscape is a social field or place where people share a practice (Skovira, 2004, pp. 312–313; Lloyd, 2010a, pp. 2–3). It is also understood as an intersubjective created space where people engage with the contextualized information to understand and make judgments about practices that are acceptable to others in the same contextual space, for example, education, community or workplace (Lloyd, 2010a, p. 3).

According to Lloyd (2006b, p. 570), knowing what constitutes an information landscape is acquired through engagement in the activities, procedures and interactions in a contextualized practice, enabling access to the information modalities sanctioned in practice. Latour (1987) suggests that people interact not only with each other in the workplace but also with the material objects that make up the context (setting) in which they are situated. Material objects are essential components of the practice of a workplace landscape. This, notwithstanding, except for Pilerot (2016, p. 416), who studies the ways in which information literacy relates to people and material objects (not even in the workplace but in the education landscape), there have been virtually no information literacy studies that examine the role of the material objects in becoming information literate in the workplace landscape. No adequate explanation prevails on the ways information literacy relates to the practitioners and material objects in the workplace landscape and, for that matter, work practice. For this reason, this study investigates how information literacy relates to the practitioners (weavers) and material objects in the Kente-weaving landscape. Specifically, the research question for this study is as follows:

> In what ways does becoming information literate relate to the material objects in the Kente-weaving landscape?

The context and material objects in the Kente-weaving landscape are introduced to understand what Kente weaving entails. After that, the conceptual framework and the literature review conceptualize information literacy and material objects in the workplace. The methodology, findings, discussion, conclusion and implication as well as the limitation of the study follow in this order.

Context of the Kente-weaving landscape

The Kente-weaving landscape is a social space where hand-woven fabric called Kente, a traditional fabric among the people of Asante and Ewe, is woven in Ghana. Kente weaving is practiced only by males (Boateng, 2018, p. 10). The weavers use a loom to create narrow pieces of cloth that are joined edge-to-edge to form a big Kente cloth. Weavers in the following communities produce the largest quantity of Kente fabric: Bonwire, Adanwomase, Denase, Ntonso, Kpetoe and Tewobaabi. Of all the Kente-weaving communities, Bonwire is the most vibrant in terms of the practices of Kente weaving. The practices of Kente weaving have brought the weavers together in a typical workplace known as the Bonwire Kente Centre. By gathering and working in the Bonwire Kente Centre (workplace), the weavers have formed

communities of practice to champion the flow of Kente knowledge. According to Sabutey (2009, p. 151), there are three types of weaving practitioners in the Bonwire Kente Centre: master, junior and novice weavers. Some of these weaving practitioners have familial ties to the weaving industry that go back many generations.

Material objects in the Kente-weaving landscape

According to Reckwitz (2002, p. 208), material objects are vital objects in the dimension of practice that can be handled. This encompasses the tools, technologies, artifacts and bodies essential in enacting practice (Fenwick, 2010, pp. 104–105; Hicks, 2018, p. 51). Material objects have cultural and social history and are, therefore, entities referenced in conversation and projects and evoke questions, meanings and activities that bring people together (Appadurai, 1986; Pilerot and Lindberg, 2018, p. 256). In this study, material objects include inanimate objects such as tools, artifacts and other physical objects that the weavers in the Kente-weaving landscape use to perform a task or produce something with. Alluding to Knorr Cetina (1997), these material objects are the very things that make the Kente-weaving activity realizable and social. Hence, removing these objects would mean no work, no worker or community of practitioners, and therefore no sociality (Monteiro and Nicolini, 2015, p. 63). From this understanding of what constitutes material objects in the Kente-weaving landscape, examples will be a Kente fabric, loom, shuttle, heddle, yarn, treadle, reed, bobbin, pulley and swordstick (Amissah and Afram, 2018, p. 106). Figures 1-4 provide pictures of some of the material objects.
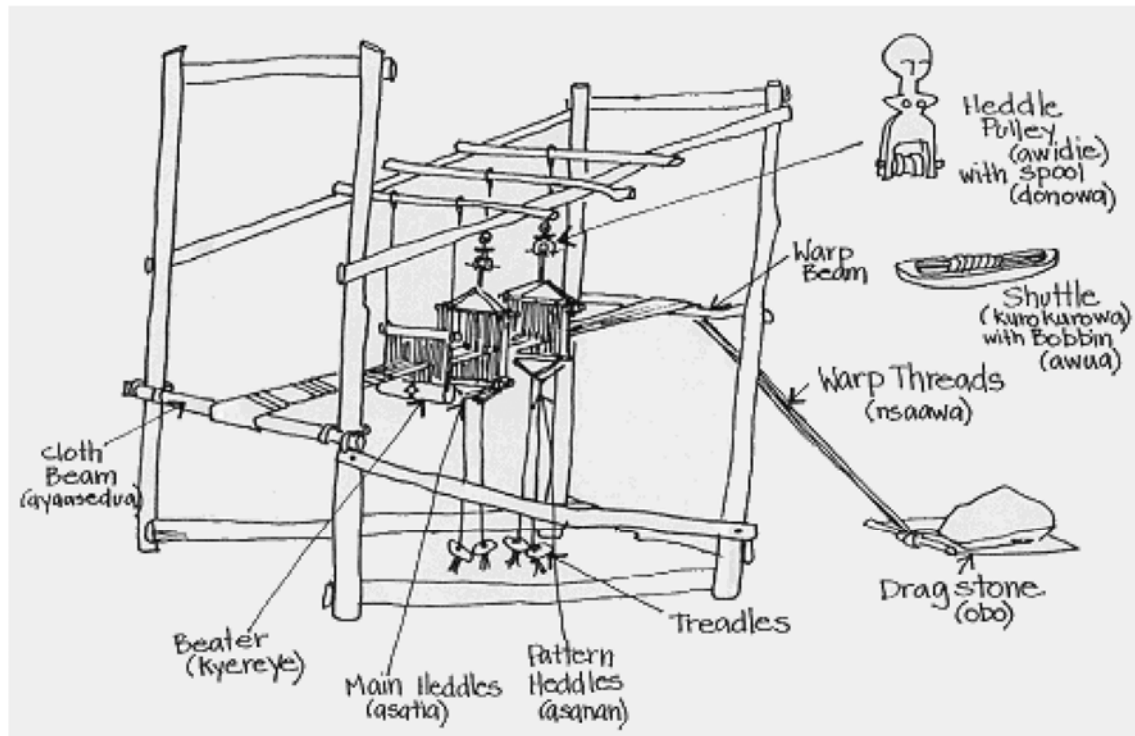
Source: Meyer (2022)

Figure 1. The loom and other material objects

Note: The picture was taken on the field with permission from the weavers

Figure 2. Swordstick

Note: The picture was taken on the field with permission from the weavers

Figure 3. Bobbin Winder

Akonya (Stool)

Rotoa (Plea on behalf)

Babadua (Strength/ Good health)

Nkyimkyim

(It takes so many ways to reach a destination/goal)

Note: The picture was taken on the field with permission from the weavers

Figure 4. A piece of Kente fabric called *Abusua yɛ dom* (Family is a crowd) fabric with embedded patterns and their meaning

Conceptual framework

The study is underpinned by the conceptualized notion of practices (Reckwitz, 2002; Schatzki, 2002). According to Reckwitz (2002), practice refers to integrating forms of bodily and mental activities, "things" and their use, background knowledge in understanding and practical know-how. He describes practices as a routinized way[s] in which bodies are moved, material objects are handled, people are treated, things are described and the world is understood (Reckwitz, 2002). From this understanding, practice elements constitute bodily and mental activities, material objects, shared competencies, knowledge and skills (Reckwitz, 2002; Dombrowski *et al.*, 2013, pp. 38–44). Skills are describe skills as practical knowledge of how to do something. They refer to skills as know-how knowledge.

Schatzki (2001, p. 26) understands practice from the notion of "site," where "site" is perceived as a context or social field through which social life is constituted. In a social field, people's co-existence occurs through interwoven practices (Schatzki, 2001, p. 26). Social life constitutes people who have come together through shared purpose, beliefs, emotions and activities that typify a given practice (Schatzki, 2001, p. 25). The site is where activities occur. Schatzki's notion of practices focuses on how social life is composed and shaped. He views the practice as a social life constituting a materially mediated array of human activities centrally organized around shared practical understandings' (Schatzki, 2002, p. 71). According to Lloyd (2010c, p. 249), Schatzki (2002) understands practice through the site phenomenon, where practices are seen not as an individual possession but as a possession of the social site. Schatzki explains that for an activity to be recognized as a practice, doings and sayings must form a nexus and must take place in a "site" of social location, context, but not necessarily spatial, with the following four elements:

1. Practical understandings (developing the "know-how") of the actions constituting the practice;
2. Rules, protocols, directives, admonishments or instructions that participants in the practice observe or disregard;
3. Teleological-affective structuring, which encompasses a range of ends, projects, actions, possible emotions and end-project action combinations (teleological orderings) that are acceptable or enjoined to pursue and realize the acceptable result; and
4. For example, general understandings about the nature of work, such as values or aesthetics, which practitioners use or draw on in action (Schatzki, 1996, p. 89; 2002, pp. 77–80; 2006, pp. 1864–1865).

From Schatzki's (2002) conception of practice, Warde (2005, p. 134) clarifies practice as constituting practical activity in the form of doings and sayings, coordinated and underpinned by understandings, procedures and participation. Practice is constituted within and through dialogic intragroup activities, facilitating shared understanding and skill development (Schatzki, 2001; Lloyd, 2010c, p. 250).

Whereas the use of Schatzki's notion of "site" and "practice" enables the Kente-weaving landscape to be theorized as the "site" that typifies a given "practice" of Kente weaving, the use of Reckwitz's practice notion brings to the fore the materials objects about the knowledge and skills that constitute the competent practice of the "site."

Information literacy and material objects in the workplace

Information literacy is understood as knowing what constitutes an information landscape by drawing meaning through interactions, processes and experience with all the sources and forms of information sanctioned in a specific landscape (Lloyd, 2006a, p. 570). Thus, information literacy is perceived as an information practice framed by sociocultural elements in a setting (Lloyd, 2007). By this definition, an information literate person is a person who is deeply conscious, linked and fluent with an information landscape (Lloyd, 2004, pp. 222–223; Lloyd, 2010b, p. 56). In this definition, being conscious and fluent is synonymous with knowing or being competent to partake in practice. It also means being capable of accessing the information sources, in the broadest sense of the word, and making sense of the affordance and nuance in the information landscape (Lloyd, 2004, pp. 222–223; Lloyd, 2010b, p. 56).

Information literacy occurs through the enactment of practice requiring a dynamic relationship with the symbolic and material objects embedded in the practice and the workplace (Lloyd, 2010a; Huvila, 2016; Olsson and Lloyd, 2017; Marchionini, 2019, p. 81). According to Bruni *et al.* (2007, p. 83), material objects mediate actions and activities and are ingrained in the work and ways of knowing the practices of the workplace landscape. This suggests the dependency of information literacy on materiality. Material objects provide affordance in developing information literacy or knowing in practice (Hicks, 2018, p. 175; Hicks, 2019, p. 1195).

Becoming information literate requires developing competence with the material activities of social practice (Shove *et al.*, 2012; Lloyd, 2017, p. 93). Information literacy relates to doing, which constitutes using specific tools of practice. Practices in the workplace characterize information skills about the tools people use in the context of everyday lived experiences (Lloyd, 2010a; Lloyd, 2010c; Lloyd, 2010d; Lloyd and Olsson, 2018). According to Huvila (2018, p. 229), when tools are put to work in the workplace, procedures, norms and practices are also implemented in terms of how the tools ought to be used. This suggests that there are protocols and norms surrounding the use of tools and materials. Knowing these protocols and the "know-how" of practical application will contribute to information literacy at the workplace. For example:

- Novice hairdressers must know which tool fits a specific purpose at a particular time, which action needs to be taken, and with what (Holmes, 2015, p. 489);
- Woodcarvers must know a wide variety of wood and understand the properties of various types of wood and which type is suitable for what (Wege, 2011, p. iv);
- Novice archaeologists must learn how to handle the trowel to lift archaeological finds (Olsson, 2016, pp. 413–415); and
- Novice miners are given information on the importance and proper use of materials such as goggles, gloves, earmuffs and dust masks at the workplace (Somerville and Abrahamsson, 2003, p. 25).

Learning about material objects relates to access to information. For this reason, to know a craft, novices need to access information on how to use the tools and other relevant materials relating to the practice (Lepistö and Lindfors, 2015, p. 3).

Huvila (2018, p. 230) and Lloyd and Olsson (2019, p. 7) suggest that the physical features of the tools of the practice afford the correct ways of usage and, in so doing, shape participants' knowledge and information literacy of the practice. The crafted artifacts indicate the competence, or otherwise, of the craftsperson who designed and made them. For example,

Nasseri and Wilson (2017, p. 199) observe that an artifact from pottery mirrors the inspiration and acumen of the practitioner who made it. This point is corroborated by Sabutey (2009, p. 159), who found that a specifically woven fabric could suggest whether the weaver is a novice or otherwise. This suggests that an expert weaver can tell from examining the physical features of an artifact whether the maker is competent. However, current literature, including that of Sabutey (2009, p. 159) and Nasseri and Wilson (2017, p. 199), needs to examine the method of determining the validity of an artifact.

Methodology

This study uses ethnography as the research design. Ethnography is a qualitative design of inquiry emanating from the field of sociology and anthropology in which the researcher describes and interprets the shared patterns of behavior, actions, values, beliefs and language of an entire culture-sharing group in its natural site over a prolonged period of time (Almagor and Skinner, 2013, p. 2; Creswell and Creswell, 2018, p. 48; Harris, 1968). Ethnography focuses on understanding and describing the social activities among people through acceptable membership in that particular culture-sharing group (Van Maanen, 2014, p. 43; Leith, 2018, p. 37). The culture here is defined as the sum of a social group's observable patterns of behavior, customs and way of living (Harris, 1968, p. 16).

According to Pilerot and Lindberg (2018, p. 257), ethnography is used to make practitioners' situated activities and actions intelligible. Thus, the ethnographic design conceives the situated action as an emergent possession of the intermittent and ongoing interaction between practitioners and between practitioners and their environments (Suchman, 1987, p. 179). In line with situated and contextualized activities, Leith (2018, p. 38) suggests that ethnography is a valuable research design that addresses the practice approach in terms of the ability to engage with the enactment of practice, as well as with its social, embodied, material and affective components, in the context of social site, and through contact interaction between the researcher and participants of the site.

The ethnographic research design accentuates the importance of a researcher's engagement with the field participants (Leith, 2018, p. 37). With this in mind, Schatzki (2012, pp. 24–25) points out that the ethnographic research design must be considered in research practices. He notes, "There is no alternative to hanging out with, joining in with, talking to and watching and getting together the people concerned."

The researcher contacted a gatekeeper of the Bonwire Kente Centre through a contact. This gatekeeper is an executive member of the group of weavers at the Bonwire Kente Centre. Gatekeepers are important intermediaries that provide or facilitate access to the study setting or potential participants in social research (Andoh-Arthur, 2019). The gatekeeper facilitated a meeting between the researcher and other Bonwire Kente Center executives to discuss the research's rationale. The researcher was accepted and introduced to the Kente Center's other weavers.

At the Kente Centre, there are different levels of practitioners: master weavers, junior weavers and novices, as noted by Sabutey (2009, p. 151). A novice weaver is a newcomer learning to weave Kente. The junior weaver is the one who is to weave basic Kente designs. In effect, a novice weaver qualifies to become a junior when he can produce basic and intricate Kente designs with little or no supervision. Master weavers are experts with knowledge of the know-

how and philosophies resulting from several years of practice. They know how to judge Kente-weaving practice (Sabutey, 2009, p. 151).

The population of the ethnographic field constitutes the three types of weavers in the Bonwire Kente Centre: master weavers, junior weavers and novice weavers, with a total population of 62. The different categories and their numbers included:

- Master weavers: 25;
- Junior weavers: 20; and
- Novice weavers: 17.

Considering the heterogeneity of the participants at the Bonwire Kente Centre, a sample was selected using a purposive sampling technique to acknowledge and include the entire spectrum of weavers. Eight participants, each from the master, junior and novice weaving classes, were selected purposefully. In all, the sample included 24 weavers.

The researcher took an overt and emic position to collect data; this decision was taken to understand and garner meaning from the weavers' perspective as they engage in their daily practices. Triangulation was used in data collection. Triangulation involves multiple methods, observational techniques and empirical materials to ascertain the accuracy, comprehensiveness, representation and verification to enhance the trustworthiness of the research (Stake, 2000, p. 443; Silverman, 2006, p. 291). This study used two data collection methods to ensure credibility: interview and observation. The participant observation method was used through the means of "participant as an observer." For this purpose, the researcher enrolled as an apprentice at the Bonwire Kente Centre for six months to collect data. Semi-structured interviews were conducted in the native language of the participants (weavers), recorded and later transcribed into English. Two Twi language experts confirmed the transcription. In addition, the responses and experiences of the participants were compared with and verified against each other to get a rich picture of the information literacy practice of the Bonwire Kente Centre. To ensure genuine observation and honest responses from participants, the researcher explained to participants that there was no wrong or right answer to any question and that their identity would also be concealed. This assurance ensured that participants felt free to discuss their work activities. The researcher concealed the participants' identities to keep his word on privacy. Hence, pseudonyms were used when referring to specific participants.

The thematic analysis method was used to analyze the field notes and interview transcripts. This decision is taken because the thematic analysis technique is appropriate when the researcher seeks to understand the participants' experiences, behavior or thoughts across a data set (Kiger and Varpio, 2020, p. 1). In this study, the researcher seeks to understand weavers' thoughts and experiences regarding how becoming information literate relates to the material objects in the Kente-weaving landscape as far as learning the craft of weaving is concerned through the search for common or shared meaning in the data set. Hence, its usage is justified.

The interviews were recorded and later transcribed. The transcribed interviews and field notes were read and reread several times, after which codes were generated manually using Microsoft Word. The focus of the coding was based on what is evidential as well as what is implied by the data set. The generated codes were collated depending on their similarities to form themes. After the idea of the various themes and how they fit together emerged, each theme was clearly defined and accompanied by a detailed analysis. Excerpts from the interview and observation

data were used to illustrate and support each theme. Excerpts of the data from the analysis were provided with pseudo-names to support the argument of the findings.

Presentation of findings

About the material objects, becoming information literate relates to learning to use the tools and developing the know-how of what constitutes the quality of a Kente fabric in the Kente-weaving landscape.

Developing the know-how knowledge regarding the Kente-weaving tools use

Becoming a competent weaver or information literate relates to learning to use the tools in the Kente-weaving landscape. Developing the "know-how" knowledge of using the tools attests to information literacy in the Kente-weaving landscape. Regarding the usage of the tool, Kankam Yeboah, a master weaver, had this to say:

> Yes, becoming a competent weaver is related to the tools and equipment we use here. The competent weaver must know how to control and use the tools.

The relationship between the competent weaver and the tools and equipment of the weaving landscape is that he should have the know-how to use them. In support of the above statement, the following observation was made in the field notes:

> I observed that the master weavers were competent in using all the tools in the weaving landscape. They used the tools effortlessly and quickly in the production of Kente. The same could not be said for the novice and junior weavers.

The ability to use all the tools in the weaving landscape is necessary for novice and junior weavers to transition to becoming master weavers. Competence and information literacy are demonstrated by one's ability to showcase the tools' know-how. There are specific ways of using the tools and materials in the Kente-weaving landscape, and novice weavers are expected to become well-versed in their usage. Learning the sanctioned ways to use the tools and materials in the Kente-weaving landscape is essential for novice weavers. For instance, Yaw Marfo, a master weaver, emphasizes the importance of knowing how to use the shuttle and the treadles":

> The weaver has to know how to handle and throw the shuttle through the opening of the warp yarns. The weaver must know how to use his feet to press the treadles […] […] […] […] […].

Similar to Yaw Marfo's statement, Kwadwo Afriyie, a junior weaver, has this to say:

> We have a way to handle the shuttle […]. Also, you should know how to press down the treadles.

Yaw Marfo and Kwadwo Afriyie's statements highlight techniques a novice weaver should master when using weaving tools, such as shuttles and treadles. This finding relates relates Adom (2016), Amissah and Afram (2018, p. 101) and Fiadzo's (2010, p. 16) identification of the picking technique as being crucial to weaving. This technique requires the weaver to repeatedly throw the shuttle loaded with bobbins through the shed created by pressing down

the treadles (Adom, 2016; Amissah and Afram, 2018, p. 101; Fiadzo, 2010, p. 16). Learning how to use the shuttle and treadle is informed by the access to information in the Kente-weaving landscape. Nana Nipa, a novice weaver, is of the view that:

> The competent weaver must know how to throw the shuttle through the warp. He should also know the style by which to press down the treadles.

Kofi Mensah, a master weaver, explains the handling and use of the shuttle and treadles as follows:

> The shuttle is handled with the thumb on the shuttle bar while the index finger is placed on the end of the shuttle. Then the remaining fingers are placed under the shuttle bar. The fingers should not touch the bobbins in the shuttle so the bobbin can wind around and release yarns when throwing the shuttle through the warp. If the shuttle is not handled this way, the bobbin would be impossible to wind up to release yarns through the warp. With your feet, you must learn how to match your feet and hands to move at an equal pace so that the shuttle can be thrown through the warp perfectly. The threads that hold the treadles should be in-between the big toes and next toes for both the right and left feet so that the treadles would not slip when pressed down.

Mensah's explanation of using the shuttle and treadles indicates that learning to use weaving tools is associated with correctly moving and turning body parts. This point is illustrated in Kwaku Duodu's statement below:

> In weaving, the shuttle is thrown from right to left and vice versa. At the same time, the weaver throws the shuttle from right to left; he has to exert effort on the right foot to push the right treadle down concurrently to open up the warp for the shuttle to be thrown through to the left. Similarly, from the left to the right, the weaver has to exert pressure on the left foot to push the left treadle down concurrently to create an opening of the warp for the shuttle containing the weft yarn to pass through. To be able to throw the shuttle through the warp, the weaver has to know how to open up the warp through the use of the feet on the treadle. We perform the same process to weave patterns or make designs on the Kente fabric. When the shuttle is on the left, the weaver uses his left foot to press the left treadle down to make a weave, and vice versa when it is on the right. If the weaver uses his left foot to press the left treadle down while the shuttle is on the right of the warp, it means that the weaver has committed an error and is reversing the weave. So when the shuttle is on the right of the warp, and you press down the left treadle, it means you are reversing a weave.

Knowing or becoming information literate about the use of the shuttle and the treadles, the novice weaver must learn to use weaving tools and how to use his hands and feet to perform techniques involving weaving tools. In other words, the weavers also need to develop their motor skills. This finding supports Newell (1991, p. 214), Tarja (2016, p. 4), Veeber *et al.* (2015, p. 22) and Yliverronen and Seitamaa-Hakkarainen (2016, p. 2) findings that craftwork develops crafters' motor skills.

Unlike the shuttle and the treadles, novice weavers must use the swordstick correctly. Owusu Adonten, a novice weaver, explains the use of the swordstick as follows:

There is also a way to handle and use the swordstick to open the warp for the set patterns. The wrist is twisted backward like gassing up a motorcycle to open the warp for the weft. One student from the university came to weave. He claimed he was a competent weaver, yet he did not know how to handle and twist the wrist to open up the warp with the swordstick. He did it the opposite way; he twisted his wrist forward instead of backward to open up the warp. After many attempts, he failed to open the warp as the swordstick kept dropping back.

The inability to twist the wrist backward proves the need for "know-how" knowledge regarding swordstick use. Agyare Ansukun, a junior weaver, explains the importance of learning how to use the reed:

Many novice weavers need to learn how to handle the reed. No matter what, you will likely handle the reed from the top when you learn to weave. The reed is handled from the side when the weaver wants to weave faster. Here, the weavers handle the reed from the side. Until I came here and learned from the other weavers, I used to handle the reed from the top. I have learned that handling the reed from the side is better than from the top.

The proper way to handle the reed is by the side when beating the fabric. The above statement underscores the need for novice weavers to learn to hold the reed from the side to weave faster. In learning to use the tools, the focus must be on developing the "know-how" knowledge rather than learning the names of the tools.

Developing know-how of what constitutes the quality of Kente fabrics

Considering a piece of woven Kente fabric to be a material object, information-literate weavers also need to access and acquire knowledge of what constitutes quality in the weaving landscape, such as knowing what constitutes a quality-woven fabric. The following field notes elaborate on this point:

I observed that the competent weaver must know the characteristics of a quality Kente fabric and how to evaluate whether a piece of Kente fabric is of quality or not.

The know-how to evaluate the characteristics of a piece of Kente fabric to establish its quality relates to being information literate and, for that matter, competent in the weaving landscape. Agyare Ansukun, a junior weaver, shares his knowledge of how to evaluate the quality of a Kente fabric in the following statement:

A competent weaver can determine from the look and feel of Kente fabric and tell if it needs to be better. For the look, for example, when there are broken ends ('Ɛfoɔ") in the woven fabric, it shows that the fabric is less quality and that the weaver could be a novice. The broken ends ("Ɛfoɔ') occur due to warp breaks. […]. For example, if a heddle break is not fixed, it would cause a defect called a float. This is where the weft yarn does not interlace the specific warp yarn for which the "eyes" of the heddle have been damaged, thereby causing the warp yarn to appear and hang on the woven fabric. So seeing some of the warp yarns appearing and hanging on the woven fabric is less quality. […] […]. For the feel, you can handle the fabric and feel it to determine if it has been woven properly. For instance, the fabric is beaten up and compactly woven if it is heavier. It, therefore, suggests that the fabric is of high quality. If the fabric is

beaten up, it becomes compact and heavier. If it is light, it means the fabric was not compactly woven, the weaver is a novice, and the fabric is low in quality.

From Ansukun's explanation, it is understood that the cues needed to label a piece of fabric as quality or less are accessed by the looks or feel experience of the fabric. The appearances of broken ends ("Ɛfoɔ") and floats on a piece of woven fabric are visual cues that the Kente fabric is of low quality. Seeing broken ends ("Ɛfoɔ') and floating on a woven fabric are indications of warp and heddle breaks. It is implied from the statement above that the presence of broken ends ('Ɛfoɔ') and floats are signals that the trained eyes understand that the fabric could be of low quality. The weight of the fabric provides a further cue of the quality of the fabric. The feel from handling the fabric regarding the weight signals information for judging its quality. It is understood that heavier feeling signals high quality and lighter feeling signals low quality.

Furthermore, the quality of a woven fabric indicates the weaver's information literacy levels or competence as a weaver. Kwadwo Afriyie, a junior weaver, explains:

> I can look at Kente fabric and tell if the maker is competent or a novice. When I hold the Kente fabric, I can tell from the weight of the Kente whether it is quality or not. The quality of the Kente fabric tells you whether the weaver is competent or not.

Afriyie's statement reiterates that competence related to information literacy is determined by the ability to weave a quality Kente fabric. It assumes a weaver who weaves quality Kente fabric is information literate in the Kente-weaving landscape.

Discussion

As far as becoming an information-literate weaver and, resultantly, a competent weaver in the Kente-weaving landscape, the novice weaver must develop the "know-how" knowledge of material objects in the Kente-weaving landscape. Just as Shove *et al.* (2012) and Lloyd (2017, p. 93) note, to become information literate in a specific work landscape, the person must develop competence with the material activities of the social practice. The findings show that to become information literate, and the person must develop a "know-how" relationship or connection with the tools. In other words, a person must learn to use the tools. Learning to use the tools relates to Schatzki's (1996, p. 89; 2002, pp. 77–80; 2006, pp. 1864–1865) element of practical understanding of the practices constituting the landscape, in this case, the Kente-weaving practices. Practical understanding is expressed by demonstrating practical knowledge of using the tools. The information-literate person is expected to have developed the know-how of the tools used in the Kente-weaving landscape. The information-literate person is corporeally informed of how the shuttle, treadle, swordstick, bobbin, winder, reed, heddles and other landscape tools are used. Here, becoming competent or information literate in the Kente-weaving landscape is synonymous with having practical knowledge of weaving tools.

According to the findings, there are sanctioned ways these tools are used in the weaving of Kente. The sanctioned ways pertain to the culturally acceptable ways the tools are used in the Kente-weaving landscape. In turn, the sanctioned ways the tools are used in the Kente-weaving landscape can be related to the element of rules as theorized by Schatzki (1996, p. 89; 2002, pp. 77–80; 2006, pp. 1864–1865). The sanctioned ways are the protocols regarding how the tools should be used in the Kente-weaving landscape. The issues of the sanctioned ways the tools are used in the Kente-weaving corroborate the findings of Huvila (2018, p. 229), who says that when tools are put to work in the workplace, procedures, norms and practices are also

put to work in terms of the use of the tools. Hence, the information literate in the Kente-weaving landscape is aware and practically capable of using the tools in line with the protocols and norms associated with the tools in the Kente-weaving landscape. Similar to Olsson's (2016, pp. 413–415) findings that there is a proper way to handle the trowel to lift fragile artifacts in the archaeological landscape, there is a proper way to handle the shuttle in the Kente-weaving landscape. For example, the information-literate Kente-weaver is expected to be informed and know how to use the shuttle and treadles when weaving. Also, an information-literate weaver must know how to apply certain body parts when weaving and should have developed the required motor skills to use weaving tools correctly, for example, to throw the shuttle through the shed or how to press down the treadles as well as how to use the swordstick.

This finding is consistent with Gherardi's (2008, p. 521) observation that the exhibition of aesthetic knowledge relates to competence in craft. The quality determination knowledge is an aesthetic knowledge the competent weaver should be able to demonstrate. The knowledge of the information signals in determining the quality of a piece of Kente fabric relates partly to what constitutes information literacy in the Kente-weaving landscape. Relating to Gherardi (2008, p. 521) and Ewenstein and White (2007, p. 689), the finding shows that developing the know-how to evaluate the quality of Kente fabric relates to an understanding and an ability to interpret the sight and touch sensory cues to become information literate and therefore competent weaver. These findings fall within the element of general understanding when attributed to Schatzki (1996, p. 89). There is a degree of conservatism regarding what constitutes quality Kente fabric. Those appearances of broken ends ("Ɛfoɔ") and floats on a piece of Kente fabric are generally accepted as indications of low quality.

The development of the "know-how" knowledge of material objects, its usage and quality, which is expressed by way of practically understanding the sanctioned ways tools are used, is tied to the teleoaffective structure of the Kente-weaving practice through efficiency and effectiveness of the weaver in the production of Kente, which is the end-project of the weaving practices (actions) acceptably. Although efficiency and effectiveness are not emotional, they provide an emotional attachment that leads towards the goal of accepting the weaver as information literate and, therefore, competent.

Conclusion and implication

Regarding the result of the research question about the ways in which becoming information literate relates to the material objects in the Kente-weaving landscape, it was found that becoming information literate relates to the material objects in the Kente-weaving landscape in the following ways:

- Developing the know-how knowledge regarding the Kente-weaving tools used; and
- Developing know-how of what constitutes the quality of Kente fabrics.

Understanding information literacy to be the person who is deeply conscious and competent in the practices of a workplace landscape suggests attainment of the "know-how" in terms of the knowledge concerning the material objects in that specific work environment. The connection or relationship between becoming information literate and material objects is developing practical knowledge regarding use and quality of material objects in the landscape. Thus, becoming information literate goes beyond having theoretical knowledge of the material objects in a workplace landscape. It is practical not merely to know the names of the material objects and their literary use. Hence, a person has to learn and be practically and theoretically

knowledgeable about material objects before being regarded as information literate in any workplace.

The material objects in a workplace landscape play a vital role in making a person knowledgeable and competent in its inherent practices. The material objects are integral and referenced in the doings and sayings that give meaning to the practices of a workplace landscape. Hence, becoming information literate also relates to having knowledge of the material objects of the landscape and how they are used.

Limitations and direction of future research

Though the study used participant observation as one of its data collection techniques, only a few observation notes were found in reference to the research question. The reason for this lies in the fact that this study was carved from a thesis. Hence, the participant observation technique used was for the entire thesis and not specifically for this study.

The study did not provide exhaustive information on how every single material object is handled and used. Hence, future research can investigate the cultural and transformative process of developing the know-how of every single material object that is used in the landscape.

References

Adom, D. (2016), "The Kente weaving processes and its assorted tools and materials", available at: https://ezinearticles.com/?The-Kente-Weaving-Processes-and-Its-Assorted-Tools-and-Materials&id=9523749 (Accessed 14 October 2019).

Almagor, E. and Skinner, J. (2013), Ancient Ethnography: New Approaches, Bloomsbury Publishing.

Amissah, E.K. and Afram, A.P. (2018), "A comparative study of Bonwire Kente and Daboya Benchibi", Trends in Textile and Fashion Design, Vol. 1 No. 5, pp. 96-108, doi: 10.32474/LTTFD.2018.01.000121.96.

Andoh-Arthur, J. (2019), "Gatekeepers in qualitative research", in Atkinson, P., Delamont, S., Cernat, A., Sakshaug, J.W. and Williams R.A. (Eds), SAGE Research Methods Foundations, SAGE Publication, London.

Appadurai, A. (Ed.) (1986), The Social Life of Things: commodities in Cultural Perspective, Cambridge University Press.

Boateng, H. (2018), "Knowledge creation and knowledge flow within Ghana's *Kente* industry: a social capital perspective", Unpublished doctoral thesis, University of Technology, Sydney.

Bruni, A., Gherardi, S. and Parolin, L.L. (2007), "Knowing in a system of fragmented knowledge", Mind, Culture, and Activity, Vol. 14 Nos 1/2, pp. 83-102.

Creswell, J.W. and Creswell, J.D. (2018), Research Design: qualitative, Quantitative, and Mixed Methods Approaches, 5th ed., Sage Publications.

Dombrowski, E., Rotenberg, L. and Bick, M. (2013), Theory of Knowledge, Oxford University Press, Oxford.

Ewenstein, B. and White, J. (2007), "Beyond words: aesthetic knowledge and knowing in organizations", Organisation Studies, Vol. 28 No. 5, pp. 689-708.

Fenwick, T. (2010), "Re-thinking the 'thing' socio-material approaches to understanding and researching learning in work", Journal of Workplace Learning, Vol. 22 Nos 1/2, pp. 104-116.

Fiadzo, S.V. (2010), "Weaving techniques in colleges of education using a variety of media", Unpublished master's thesis, Kwame Nkrumah University Science and Technology, Kumasi.

Gherardi, S. (2008), "Situated knowledge and situated action: what do practice-based studies promise?", in Barry, D. and Hansen H. (Eds), The Sage Handbook of New Approaches in Management and Organization, Sage, Thousand Oaks, CA, pp. 516-527.

Harris, M. (1968), The Rise of Anthropological Theory: A History of Theories of Culture, T. Y. Crowell Publication.

Hicks, A. (2019), "Mitigating risk: mediating transition through the enactment of information literacy practices", Journal of Documentation, Vol. 75 No. 5, pp. 1190-1210.

Hicks, A., McKinney, P., Inskip, C., Walton, G. and Lloyd, A. (2022), "Leveraging information literacy: mapping the conceptual influence and appropriation of information literacy in other disciplinary landscapes", Journal of Librarianship and Information Science, Vol. 55 No. 3, pp. 1-19, doi: 10.1177/09610006221090677.

Hicks, A. (2018), "The theory of mitigating risk: information literacy and language-learning in transition", Unpublished doctoral thesis, University of Boras.

Holmes, H. (2015), "Transient craft: reclaiming the contemporary craft worker", Work, Employment and Society, Vol. 29 No. 3, pp. 479-495.

Huvila, I. (2016), "Affective capitalism of knowing and the society of search engines", Aslib Journal of Information Management, Vol. 68 No. 5, pp. 566-588, doi: 10.1108/AJIM-11-2015-0178.

Huvila, I. (2018), "Putting to (information) work: a Stengersian perspective on how information technologies and people influence information practices", The Information Society, Vol. 34 No. 4, pp. 229-243, doi: 10.1080/01972243.2018.1463332.

Kiger, M.E. and Varpio, L. (2020), "Thematic analysis of qualitative data", Medical Teacher, Vol. 42 No. 8, pp. 846-854.

Knorr Cetina, K. (1997), "Sociality with objects: social relations in post-social knowledge societies", Theory, Culture and Society, Vol. 14 No. 4, pp. 1-30.

Latour, B. (1987), Science in Action, Harvard University Press.

Leith, D.V. (2018), "The practice of knowledge sharing: two environmental sustainability initiatives in Australian local government", Unpublished doctoral thesis, University of Technology Sydney.

Lepistö, J. and Lindfors, E. (2015), "From gender-segregated subjects to multi-material craft: craft student teachers'views on the future of the craft subject", FormAkademisk - Forskningstidsskrift for Design og Designdidaktikk, Vol. 8 No. 3, pp. 1-20, doi: 10.7577/formakademisk.1313.

Lloyd, A. (2004), "Working (in) formation: conceptualizing information literacy in the workplace", in Danaher, P.A., McPherson, C., Nouwens, F. and Orr, D. (Eds), Lifelong Learning: whose Responsibility and What is Your Contribution: 3rd International Life Long Learning Conference 2004, Central Queensland University Press, pp. 218-224.

Lloyd, A. (2006a), "IL landscapes: an emerging picture", Journal of Documentation, Vol. 62 No. 5, pp. 570-583.

Lloyd, A. (2006b), "Drawing from others; ways of knowing about IL performance", Lifelong Learning: Partners, Pathways, and Pedagogies: 4th International Lifelong Learning Conference 2006, Central Queensland University Press, pp. 182-192.

Lloyd, A. (2007), "Recasting information literacy as sociocultural practice: implications for library and information science researchers", Information Research, Vol. 12 No. 4, paper colis34, available at: http://InformationR.net/ir/12-4/colis34.html (Accessed 4 March 2019).

Lloyd, A. (2010a), Information Literacy Landscapes: information Literacy in Education, Workplace, and Everyday Contexts, Chandos Publishing.

Lloyd, A. (2010b), "From skills to practice: how does information literacy happen?", 40th Anniversary International Conference 2010. 2-9 October Proceedings, Korean Society for Library and Information Science

Lloyd, A. (2010c), "Framing information literacy as information practice: site ontology and practice theory", Journal of Documentation, Vol. 66 No. 2, pp. 245-258.

Lloyd, A. (2010d), "Corporeality and practice theory: exploring emerging research agendas for information literacy", Information Research, Vol. 15 No. 3, pp. colis794, available at: http://InformationR.net/ir/15-3/colis7/colis704.html (accessed 9 May 2020).

Lloyd, A. (2017), "Information literacy and literacies of information: a mid-range theory and model", Journal of Information Literacy, Vol. 11 No. 1, pp. 91-105.

Lloyd, A. and Olsson, M. (2018), "Enacting and capturing embodied knowledge in the practices of car restorers", Journal of Librarianship and Information Science, Vol. 51 No. 4, pp. 1033-1040.

Lloyd, A. and Olsson, M. (2019), "Untangling the knot: the information practices of enthusiast car restorers", Journal of the Association for Information Science and Technology, Vol. 70 No. 12, pp. 1-13.

Lloyd, A. and Williamson, K. (2008), "Towards an understanding of information literacy in context: implications for research", Journal of Librarianship and Information Science, Vol. 40 No. 1, pp. 3-12.

Marchionini, G. (2019), "Search, sense-making and learning: closing gaps", Information and Learning Sciences, Vol. 120 Nos 1/2, pp. 74-86.

Meyer, L. (2022), "Building a loom: a guide to building a strip-cloth loom as used by Kente weavers in Ghana", available at: www.africancraft.com/educ.php?sid=68089723392258631009543052094056&id=lmeyer3&page=3 (accessed 21 July 2021).

Monteiro, P. and Nicolini, D. (2015), "Recovering materiality in institutional work: prizes as an assemblage of human and material entities", Journal of Management Inquiry, Vol. 24 No. 1, pp. 61-81.

Nasseri, M. and Wilson, S. (2017), "A reflection on learning crafts as a practice for self-development", Reflective Practice, Vol. 18 No. 2, pp. 194-205.

Newell, K.M. (1991), "Motor skill acquisition", Annual Review of Psychology, Vol. 42 No. 1, pp. 213-237.

Olsson, M. (2016), "Making sense of the past: the embodied information practices of field archaeologists", Journal of Information Science, Vol. 42 No. 3, pp. 410-419.

Olsson, M. and Lloyd, A. (2017), "Losing the art and craft of know-how: capturing vanishing embodied knowledge in the 21st century", Information Research, Vol. 22 No. 4, pp. Paper rails1617, available at: http://InformationR.net/ir/22-4/rails/rails1617.html (accessed 4 March 2020).

Pilerot, O. (2016), "A practice-based exploration of the enactment of information literacy among Ph.D. students in an interdisciplinary research field", Journal of Documentation, Vol. 72 No. 3, pp. 414-434, doi: 10.1108/JD-05-2015-0056. (accessed 30 March 2019).

Pilerot, O. and Lindberg, J. (2018), "Inside the library: academic librarians' knowing in practice", Journal of Librarianship and Information Science, Vol. 50 No. 3, pp. 254-263.

Reckwitz, A. (2002), "Toward a theory of social practices: a development in cultural theorizing", European Journal of Social Theory, Vol. 5 No. 2, pp. 243-263.

Sabutey, G.T. (2009), "Aesthetics, appreciation and criticism among indigenous *Asante Kente* weavers: implications for art education and national development", Unpublished doctoral thesis, Kwame Nkrumah University of Science and Technology, Kumasi.

Schatzki, T. (1996), Social Practices: A Wittgensteinian Approach to Human Activity and the Social, Cambridge University Press.

Schatzki, T. (2001), "Introduction: practice theory", in Schatzki, T., Knorr Cetina, K. and von Savigny, E. (Eds). The Practice Turn in Contemporary Theory, Routledge, pp. 1-14.

Schatzki, T. (2002), The Site of the Social: A Philosophical account of the Constitution of Social Life and Change, PA University Press.

Schatzki, T. (2012), "A primer on practices", in Higgs, J., Barnett, R., Billett, S., Hutchings, M. and Trede, F. (Eds). Practice-Based Education: Perspectives and Strategies, Sense Publishers, pp. 13-26.

Shove, E., Pantzar, M. and Watson, M. (2012), The Dynamics of Social Practice: everyday Life and How It Changes, Sage Publications.

Silverman, D. (2006), Interpreting Qualitative Data, 3rd ed., Sage, London.

Skovira, R.J. (2004), "Using informational landscape as a model to understand information use and design within organizations", Issues in Information Systems, Vol. 1, pp. 308-314.

Somerville, M. and Abrahamsson, L. (2003), "Trainers and workers constructing a community of practice: masculine work cultures and learning safety in the mining industry", Studies in the Education of Adults, Vol. 35 No. 1, pp. 19-35.

Stake, R.E. (2000), "Case studies", in Denzin, N.K. and Lincoln, Y.S. (Eds), Handbook of Qualitative Research, 2nd ed. Sage Publications, Thousand Oaks, pp. 435-454.

Suchman, L. (1987), Plans and Situated Actions: The Problem of Human-Machine Communication, Cambridge University Press, Cambridge.

Tarja, K. (2016), "Diverse orientations are craft education: student teachers' conceptions and perceptions", Techne Series A, Vol. 23 No. 1, pp. 1-14.

Van Maanen, J. (2014), "The present of things past ethnography and career studies", Human Relations, Vol. 68 No. 1, pp. 35-53.

Veeber, E., Syrjäläinen, E. and Lind, E. (2015), "A discussion of the necessity of craft education in the 21st century", Research in Sloyd Education and Craft Science, Vol. 22 No. 1, pp. 15-29.

Warde, A. (2005), "Consumption and theories of practice", Journal of Consumer Culture, Vol. 5 No. 2, pp. 131-153.

Wege, N.K. (2011), "Documentation of the lives and works of four traditional woodwork artists in Ghana: a resource for teaching and learning in the senior high school", Unpublished Master's thesis, Kwame Nkrumah University of Science and Technology, Kumasi.

Yliverronen, V. and Seitamaa-Hakkarainen, P. (2016), "Learning craft skills: exploring preschoolers craft making process", Techne Series, Vol. 23 No. 2, pp. 1-15.

Further reading

Agyemang, F.G., Wessels, N. and Du Preez, M. (2022), "Becoming a competent weaver: information literacy practice of the weavers of the Bonwire Kente Centre in Ghana", Journal of Documentation, Vol. 79 No. 4, doi: 10.1108/JD-07-2022-0159.

Fafeita, J. and Lloyd, A. (2012), "Plating up information literacy as a social practice: a slice of the literature", Australian Academic and Research Libraries, Vol. 43 No. 2, pp. 92-101, doi: 10.1080/00048623.2012.10722263.

Lloyd, A. (2009), "Informing practice: information experiences of ambulance officers in training and on-road practice", Journal of Documentation, Vol. 65 No. 3, pp. 396-419.

Lloyd, A. (2011), "Trapped between a rock and a hard place: what counts as information literacy in the workplace, and how is it conceptualized?", Library Trends, Vol. 60 No. 2, pp. 277-296.

Schatzki, T.R. (2006), "On organizations as they happen", Organization Studies, Vol. 27 No. 12, pp. 1863-1873.