DIALOG FROM THE FIELD

Authentic Assessment to Measure Outcomes in Creative Arts

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Integrating creative arts in early childhood and assessing child development is not only good for children, it is mandated by policy in many countries. The United States congress passed *Goals 2000: Educate America Act* (P.L.103-227) which added creative arts to the educational landscape in 1994. When designing a creative arts curriculum framework, educators must determine how to measure children's learning and development. This article shares ways to integrate creative arts into a curricular framework, and use authentic assessment in the process.

Keywords: authentic assessment, curriculum framework, creative arts, early childhood education, integration

Creativity is a lifelong pursuit with roots in early childhood. Young children need opportunities to experience creative arts (Copple, & Bredekamp, 2009; Eckoff, 2008). Integrating creative arts in early childhood and assessing child development is not only good for children, it is mandated by policy. In 1994, congress passed *Goals 2000: Educate America Act* (P. L. 103-227), which added creative arts to the educational landscape. The *Educate America* law stipulated that students will complete grades 4, 8, and 12 having met competencies related to creative arts.

Creativity is complex and difficult to define, but is essential for young children. May (2009) indicated that young children will benefit from creative activity and it prepares them to be critical thinkers. According to Wright (2012), the arts foster creativity and innovation, foster problem-solving skills, transfer knowledge, and are fundamental in early childhood (Edwards, 2010; Wright, 2012).

Creative activity will provide young children opportunities to become imaginative thinkers, leaders of scientific discovery and business (Yates & Twigg, 2017). Emerging studies are beginning to support art-based activity and assessment. Flowers, Carroll, Green and Larson (2015) carried out a study using art to assess young children's Environment Education outcomes and revealed that drawing represents an effective way of evaluating children's cognitive (environmental awareness) and affective (environmental attitudes) relationship to nature. The research also suggested that children show a preference for drawing and coloring on plants, animals and nature, supporting the importance of art-based education programs. Science,

Technology, Engineering, Art, and Math (STEAM) has become quite popular over the past decades, and there is a growing interest in STEAM-based knowledge and skills across professions (Smith, King, & Gonzalez, 2015). Today, art is an essential part in early childhood education. Therefore, STEAM integrates the arts in the STEM curriculum to assist children to acquire STEM knowledge (Sharapan, 2012). According to Grinnell and Angal (2016), arts promote the creativity and ingenuity that are crucial for the nation's economic development.

The creative process has been a source of interest for researchers and others. Graham Wallas was a social psychologist who proposed a four-stage process to creativity (Wallas, 1926). The *Wallas Model of Creative Process* begins with the first stage called "Preparation." In this stage the person is making observations about their world, and identifying an imaginative task or activity they are interested in tackling. The "Incubation" stage involves thinking about the task or challenge and letting it incubate over time. An example of this is when Sir Paul McCartney was writing a song for the Beatles he first came up with the melody, but took time to develop the lyrics. As a placeholder he used the words, "scrambled eggs" until he could think of the perfect words that had three syllables (Sturges, 2014). The incubation period gave him time to let his ideas percolate. During the "Illumination" stage McCartney had his aha moment when he landed upon the word "yesterday" to replace "scrambled eggs." The last stage of "Verification" is a time to check out the new idea or discovery. McCartney also verified that another artist hadn't already written a song with the same features.

Later, E. Paul Torrance who was called the Father of Modern Creativity, proposed the following ingredients as necessary for creative endeavors: (a) fluency, (b) flexibility, (c) originality, and (d) elaboration (Torrance, 1971, 1993, 2003). When McCartney was engaged in songwriting, he had ideas flowing in a fluent manner. He was flexible in his approach and continued to work through his ideas to come up with an original song. The process was iterative and he continued to refine his song "Yesterday" by elaborating and expanding on his creative ideas until he was near completion and could put the finishing touches on his lyrics and melody.

The work of Wallas and Torrance can be applied to encouraging creativity in young children. Exploring creative processes has many benefits. For one, creative arts can foster divergent thinking skills (Geist, & Hohn, 2009; Loomis, Lewis, & Blumenthal, 2007). Creative arts can help children express themselves when words are difficult to form (New, 2007). Creative arts can lead to more sophisticated social play (Holmes, Romeo, Ciraola, & Grushko, 2015), as well as pretend play and storytelling (Fehr & Russ, 2016; Leonard & Yorton, 2014). "Every art encounter requires that children use intellectual, social, and emotional skills, concepts, and knowledge throughout the creative process" (Edwards, 2010, p. 31).

In a study by Alkuş and Olgan (2014), both pre-service and in-service teachers were asked to share their perceptions about creativity. The researchers found that both groups of teachers faced challenges with implementing creative arts into the early childhood curriculum. Teachers struggle with a range of issues from professional development (Jeffrey & Craft, 2004; Schwartz & Bloomgarden, 2001), to fostering creativity (Orr & Kukner, 2015; Pavlou, 2009; Rinkevich, 2011), to talking with children about creative arts (Bell, 2011; Shulsky & Kirkwood, 2015). Educators can integrate creative arts into the existing curricular framework, and use authentic assessment practices to show development and growth in the creative arts.

CREATIVE ARTS AND HEAD START

The Head Start Early Learning Outcomes Framework ("Framework") aims to nurture a deep understanding of the developmental and learning domains for children from birth to five (USDHHS, 2015). Grounded in research, the framework describes the key areas of the development and learning, as well as the learning outcomes in order to assist adults to provide effective learning practices. This facilitates children to achieve the important learning outcomes (Gallagher & Lambert, 2006). The Framework also is intended to serve as a guide for curriculum choices, learning materials, daily activities planning, and teaching practices.

The key characteristics of the Framework in selecting effective teaching practices are research-based, comprehensive, inclusive, manageable, and measurable. Research-based practices are age appropriate, reasonable and achievable, and aligned with expectations for kindergarten. The comprehensiveness represents the coverage across essential domains of early childhood development to ensure children acquire skills and learning abilities to succeed in each area. Inclusiveness embraces children from various linguistic, cultural, economic backgrounds, and with disabilities. Manageable domains, sub-domains, goals and indicators are included to ensure effective implementation for successful programs. Measurement can be applied to observable skills, behaviors and concepts for assessment.

The Framework is structured with five elements listed below:

- Domains that focus on five central areas of development,
- Subdomains consisting of categories within each domain,
- Goals that describe expectation of children's learning and development,
- Developmental Progressions that define the skills, behavior and concepts as they progress, and
- Indicators that describe specific observable skills, behaviors and concepts.

The domains are areas that are critical to school and long-term success. They include approaches to learning, social and emotional development, language and literacy, cognition, perceptual, motor and physical development. One of the subdomains for Approaches to Learning is Creativity. The responding goals are "child uses creativity in thinking and communication" (USDHHS, 2015, p.21).

Arts are beneficial for children in Head Start programs according to the domains introduced within the Framework, including social-emotional and academics. Even though, the Framework indicates that it does not include creative arts as a single domain, due to the focus on school success and a set of key learning areas, it points out that art experiences are critical as a part of the early childhood curriculum. The benefits of creative arts can be incorporated to effectively promote development and learning across all the domains in the Framework. Moreover, creative arts can support the development of curiosity, fine motor skills, vocabulary, counting and objects relations, and self-regulation skills. The benefits of creative arts also provide opportunities for exploration and discovery, active and engaged learning, and individual expressions. The Framework states that aligning curriculum with creative art activities ensures children broadened learning experiences and magnifies positive impacts on the outcomes.

Guiding principles support the creative art role as it facilitates the learning and development of young children in school and beyond. One of the guiding principles of the Framework pointed out that developmental areas can be strengthened and foster learning

simultaneously. Creative arts can be integrated within the practices to achieve this. For example, an art project can be applied to illustrate concepts and help children gain fine motor skills and emotional benefits.

Diversity across family's culture, beliefs, background, and language was emphasized in the guiding principles. Creative art can act to empower teachers to conduct responsive and respectful learning spaces for children in order to express their unique experiences and backgrounds. As an example of the infusion of creative arts in the Framework, one of the subdomains under Perceptual, Motor, and Physical Development is Fine Motor. Some of the goals under subdomain Fine Motor are "child coordinates hand and eye movements", and "child uses hands for exploration, play, and daily routines" (USDHHS, 2015, p.70). The developmental progressions for 16-36 months listed examples of activities that includes painting and drawing. The indicators target observations to identify that children have achieved or acquired such skills and behaviors.

Throughout the developmental progressions section of the Framework, creative arts are applied across many development regressions. Under social and emotional development, creative arts are mentioned when children draw a picture of their family, language, and tell a story. Under communication, it is when children talk about what they have drawn, fine motor skills. Under emergent literacy, it emphasizes when children practices drawing and scribbling. Under cognitive development, creative arts can be used to represents a symbol and to express concepts. Under mathematics development, creative arts are used when children drawing objects to represent numbers, addition and subtraction, and can especially benefit children who are dual languages. Under scientific inquiry, it applies when children draw a picture to represent observable phenomena. Under perceptual motor and physical development domain, creative arts serve the developmental goals when children draw fine details of observed objects.

Various domains use arts as part of the development and progress of children's learning and experiences. It supports the notion that creative arts are very important to practice in Head Start to ensure a successful learning for children. Brown and Sax (2013) examined whether arts enrichment improves positive emotions of 174 low-income at risk Head Start children. Ninety percent of the families were low-income based on federal poverty guideline. The Settlement Music School's Kaleidoscope Preschool Arts Enrichment Programs are adopted to use music, dance, and visual arts with daily learning. The children's classroom emotions were collected via direct observation and teacher rated emotion expression and regulation. The frequency of positive and negative emotions across the day was compared with children at a nearby Head Start site. Arts activities significantly increased observed positive emotion including interest, happiness, and pride compared with traditional learning classes. The results show that children in art-integrated Head Start showed increase in positive and negative emotion regulation when compared with children in traditional Head Start.

The CARING at Columbia Head Start demonstrated a model that integrates creative art for mental health promotion. Parents learn play skills via group discussion and hands-on activities to bond with their child through interactive play, art, and music. The Caring at Columbia Head Start Parent-Child program is an effective prevention program that promotes parent-child relationships by empowering creative-expressive play and arts (Kestenbaum et al., 2016).

Research showed the importance of integrating creative arts for Head Start children to foster better development and learning. As described in the Framework, creative arts can strongly facilitate children's learning and development across all domains. Programs and

curriculum that integrate creative arts will promote better performances for children's success. Research findings emphasized those benefits for children's development across different domains. These benefits can be utilized for Head Start to incorporate and assess more creative arts programs under the current Framework.

INTEGRATING CREATIVE ARTS INTO THE CURRICULUM

Many early childhood professionals may find it challenging to measure children's development and learning in the creative arts domain. It is essential to demonstrate to parents and others what children are learning. Having a system to observe and assess children's progress in the creative arts will be necessary. Creative arts does not have to be something that is part of the curriculum at certain times of the day, or during specific "art" activities. Creative arts can be integrated into the existing early childhood curriculum through adult- or child-initiated activities (Johnson, Rahn, & Bricker, 2015).

Adult-initiated.   When adults plan a curriculum or activities for children, creative arts integration can occur by making opportunities to explore: socio-dramatic play, language arts, music, movement, and/or visual arts. Learning opportunities occur as a result of activities initiated by the adult (Bagnato, McLean, Macy, & Neisworth, 2011). Adults can use a variety of tools for inspiration. Adult-initiated activities are planned out and facilitated by the adult. Decide whether the activity will be process or product oriented.

A *product approach* places emphasis on the outcome. For example, an activity for all the children in class is to make a paper plate mask that is part of a social studies theme on how different cultures use masks. Specific materials are used in a step-by-step fashion. The activity is adult-directed and children follow the adult's lead. All the masks look the same when the activity is done.

A *process approach* places emphasis on the creative experience. An example of how the mask activity would be different with a process emphasis could be to provide children with a wide array of materials and ask them to make their own mask. Each child's mask would be unique and look different from the rest. Both approaches can foster degrees of creativity in different ways.

Child-initiated.   Creative arts integration can occur when adults allow the child's interests to emerge by embedding socio-dramatic play, language arts, music, movement, and/or visual arts opportunities during play and routines. Learning goals for children are embedded into the opportunities that each child initiates for himself or herself given the environment and context purposefully designed by the adult (Macy & Bricker, 2006; Rahn, Coogle, & Storie, 2016; Snyder, Hemmeter, McLean, Sandall, & McLaughlin, 2013; Synder et al., 2015; Venn et al., 1993). Embedded learning opportunities promote creativity because children are following their own interests and motivation, as opposed to direct instruction from the adult (Macy & Bricker, 2007).

Art education can produce positive learning outcomes, develop a better sense of cultural identity, and foster creative way of thinking in young children (Stone & Chakraborty, 2011). Product approach in art education means the art projects have a specific finished results, and the final projects look similar from child to child (Stone & Chakraborty, 2011). Children participate

in this kind of activities that encourage them to copy an already created artwork, the scope of creativity is limited (McLennan, 2010). Product approach offers limited opportunity for children to express their creativity, make decisions, and experiment with materials by themselves (Stone & Chakraborty, 2011). However, not all product approach in art education is unproductive; it is appropriate sometimes in the early childhood education settings.

The process-based art education allows children to express themselves freely and demonstrate their knowledge, skills, and feelings in nonverbal ways (Alter, Hays, & O'Hara, 2009). During the process-based art activity, children focus on exploration with the material and investigation of the art process, while adults stay aside during the activity. In this way, learners are free to explore and experience within multi-layered acts of cognition (Dahlberg, Moss, & Pence, 1999). In addition, the process approach encourage children to think critically, to evaluate information showed by others (Howard, 2004). This open-ended art activity provides young learners authentic and holistic way of learning.

AUTHENTIC ASSESSMENT

The Latin origin of the word "assessment" is *assidere* which means to sit beside and get to know. Assessment of the creative process are foundational in both the Wallas (1926) and Torrance (1971; 1993; 2003) creativity models. Observing and documenting creative arts development in young children can be facilitated through the use of authentic assessment practices. Authentic assessment is a way to gather data and capture what the child is able to do (Bagnato & Macy, 2010). It can also reveal emerging skills, as well as skills the child is not yet ready to tackle. Macy, Bagnato, and Gallen (2016) state that authentic assessment is a useful alternative to traditional assessments because it incorporates materials, routines, and environments that are familiar to children. Figure 1 shows a framework for integrating creative arts in a play-based early childhood curriculum.
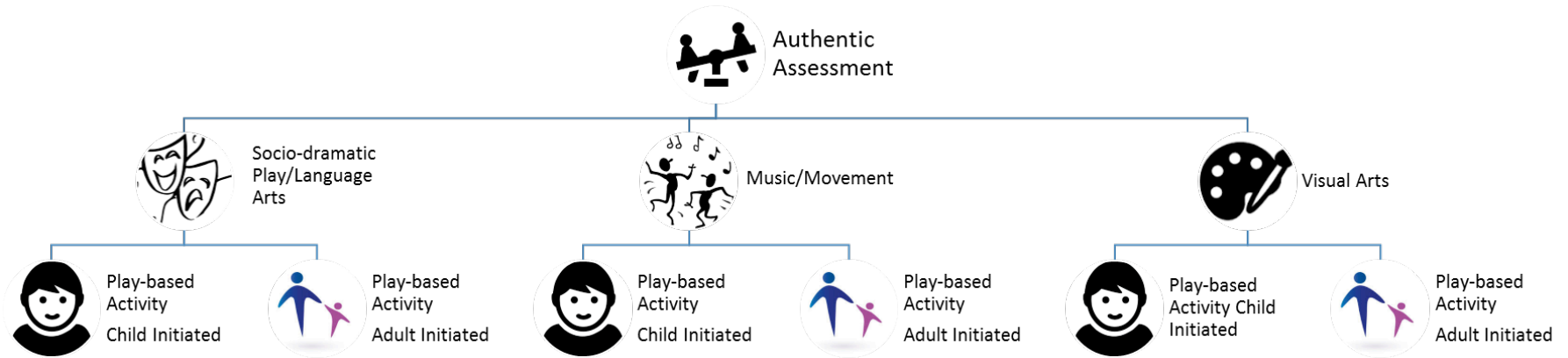
Figure 1. Authentic assessment in a play-based creative arts curriculum.

In the figure an icon shows two people on a see-saw to represent authentic assessment. The adult plays with the child and can learn about the child's development in the creative arts (i.e., drama, music/movement, and visual arts) through the context of play. No special kits or table top testing are needed (Macy & Bagnato, 2010). Play can be a child-initiated activity whereby the child selects music, movement, drama, or visual arts that they find motivating. Adult-initiated creative art activities are those the caregiver or teacher sets up for the child to experience.

Authentic assessment is the alternative to the standardized, traditional testing practices for assessing young children's development progress. Authentic assessment is known as play-based and naturalistic assessment, which is to collect information regarding a child's behavior by familiar adults when the behavior is naturally happening (Grisham-Brown, Hallam, & Pretti-Frontczak, 2008). According to Warner, Lynch, Nabors, and Simpson (2008), authentic assessment can provide opportunities for children to apply their knowledge in real life contexts. Results from authentic assessment can be used to direct program-planning, curriculum, and lesson plans (Macy & Bagnato, 2010).

Play-based assessment is one form of authentic assessment that can obtain information about the child's strength and areas to work on (Dennis, Rueter & Simpson, 2013). The assessment also includes observing how a child plays alone, with caregivers, with peers in free and structured play (Dykeman, 2008). Therefore, authentic assessment allows for more authentic results when observing and assessing young children (Dennis, Rueter & Simpson, 2013).

Authentic assessment is an evidence-based practice (Bagnato, 2007; Bagnato, Neisworth, & Pretti-Frontczak, 2010; Kim, Lambert, & Burts, 2013; Macy & Bagnato, 2013). Professionals have more tools to facilitate authentic assessment. Due to the advances in technology in recent years, it is easier for professionals and families to use authentic assessment (Macy, Bagnato & Gallen, 2016). Several instruments are also available to provide children's ongoing behaviors and skill acquisition, so families are able to see the progress their children are making. What follows are two vignettes that show how authentic assessment could be used to assess learning and development in the creative arts.

Child-initiated Music and Movement Vignette

Annie went straight for the scarves in her preschool classroom when she arrived one morning. Singing along with music while she danced was one of her favorite things to do. Another child was already in the same area moving her body to the Laurie Berkner song, "All Around My Room." Annie bent over to pick up two rainbow scarves. Next, she swung her hips and arms to the beat of the song. Annie held a scarf in her left hand and a scarf in her right hand using a palmar grasp. She brought both hands to midline at different times in the song.

Annie smiled at her classmate while the music played. Her preschool teacher was nearby and saw Annie initiate the creative arts play-based activity. She jotted a note to remember the way Annie was using her bilateral motor coordination in her play with the scarf while swaying to the rhythm, and then joined the children in dancing and singing.

Creative arts products.   This is an example of a child-initiated play-based activity that Annie's teacher was able to use authentic assessment to observe and record child development during creative arts. The creative art products used were scarves located in an easy to reach

basket for children near the classroom music center and an iPad with children's music. Annie's teacher used a note taking system that she created for each child in her preschool class. Specifically, Annie had goals and objectives in fine and gross motor domains that were being observed and worked on in her individualized program.

  Developmental progression. Annie's skills may have been documented during the expressive creative arts play in the following areas: gross motor ability to bend down and then get back up, move in a designated space, eye-hand coordination, social interaction with a peer and adult, communication (both receptive and expressive), cognitive ability to repeat song lyrics, interest in the song, and moving her body to the music. Annie's progress could be tracked over time to capture the changes taking place in her development and learning.

  This scarf play shows a process-oriented approach where the outcome of the activity was less important than the process of the actual music/movement experience. For example, the dance she created for the song is unique and focused on Annie's own interpretation of the music in how she moved her body (process). It was not a rehearsal in preparation for a recital where all the children would produce the same exact dance in a specific way (product). Authentic assessment was how Annie's teacher documented Annie's development, growth, and learning.

Adult-initiated Visual Arts Vignette

Mr. Rico was having a family night for children and their families. Before the event, he had each child in the class draw a self-portrait which was part of a unit he was teaching in social studies. In small groups of three, each child was able to interact with a teacher and look into a mirror during their drawing activity. A rich discussion took place during the art activity about faces. Mr. Rico often integrates creative arts with other areas of his curriculum (e.g., math, reading, science, social studies, etc.).

  When family night arrived, Mr. Rico introduced the families to the art studio. Parents were asked to find their child's self-portrait based on guesses and not labelled with their child's name. Annie and her parents looked at all the self-portraits hanging on the wall with names hidden. A discussion about the lines, shapes, patterns, and body parts were discussed. Annie eventually couldn't keep the secret any longer and blurt out which self-portrait was hers.

  Creative arts products. The creative art products used were paper and colored utensils (e.g., crayons, chalk, pencils, markers, etc.), as well as a mirror for each child to see their face while they drew. Having enough materials for each child gave Mr. Rico the ability to manage the small group. The responsive environment he created for children to focus on creative arts enhanced the adult-initiated activity because of the materials, environmental arrangement, attention to each child, and supportive communication.

  Developmental progression. This is an example of an adult-initiated play-based activity that Mr. Rico integrated into the curriculum. He was able to document the way each child was using their fine motor skills to hold their writing utensil to create their masterpiece. Mr. Rico also indicated how children created semi-representational figures to express their ideas using lines and shapes to represent things like legs and arms. Awareness of body parts and shape concepts were also noted during the small group activity. The self-portrait activity is an example

of a product-oriented approach where the outcome of the activity was part of the focus of the lesson.

Differentiating instruction.   Mr. Rico could use authentic assessment to consider children's learning and development. He could use the information collected during his observations to differentiate instruction for children as needed. For example, for children not yet able to use a three-finger grasp to hold a utensil, Mr. Rico could supply adapted utensils that scaffold the tripod grasp. For social emotional development, Mr. Rico could support children in their comments related to self-identity. The adult-initiated creative arts activity could be made personal to each child in the group by noticing what they need and/or do not need through differentiation. Differentiated instruction can be used with authentic assessment.

Authentic assessment can be used with an individual child or with a group of children. The music/movement vignette showed how authentic assessment could be used with an individual child, whereas the visual arts vignette showed how authentic assessment could be used with a group of children. The complete authentic assessment process starts with planning how to set up a system of ongoing observation and documentation. Work together with others on the team (both professionals and parents) to implement authentic assessment. Continue to use and refine authentic assessment practices.

SUMMARY

The purpose of the Head Start Framework is to guide programs to select its assessment instead of serving as the assessment tool. The indicators defined by each domain, subdomain, and development progressions provided detailed and specific guidelines for assessment of those learning processes and outcomes. As required by the Framework, the outcomes need to follow one of the elements for effective teaching practices to be reflected in observable skills, behaviors and concepts. Bagnato, Goins, Pretti-Frontczak, and Neisworth (2014) provide a look at standards for authentic assessment.

The authentic assessment relies on teachers, parents, and caregivers, as knowledgeable, informed individuals, to observe, record and capture information that is authentic in daily routines. This coincides with what the Framework calls identified users: staff, teachers, parents, and community partners. The Framework also guides curricula, assessments, and professional development provided by the Head Start programs. The Framework provided the indicators that are aligned with the developmental domains, goals, and development progressions. They are completely in agreement with the authentic assessment measure that demonstrates the link between the goals and teaching practices.

Similarities and alignment between the authentic assessment and the assessment indicators within the Framework context exist. Authentic assessment is a useful way to monitor child progress. A growing body of research shows the promise of using authentic assessment in early childhood programs (Macy & Bagnato, 2013; Pretti-Frontczak, Bagnato, Macy, & Sexton, 2011). Teachers can spend more time encouraging creativity when assessment practices are easily mapped onto daily routines and classroom curricular activities. Future research could examine helpful ways to support professionals in adopting this strategy (Lambert, Gallagher, & Abbott-Shim, 2015).

Authentic assessment can take place anytime and anywhere. No fancy materials are required. Child-initiated or adult-initiated creative art activities can be used when doing an authentic assessment. Professionals can do the authentic assessment using parent/caregiver report and observations too. Whether a process or product approach is used, authentic assessment can capture how a child is developing their creative art abilities.

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