
Documenting Learning Types and Purposes

Telling will never be as effective as experiencing.

—George Couros

Outside of the brick-and-mortar or virtual school day, we are living and thriving in a time when *where* we learn, *how* we learn, *when* we learn, and *with whom* we learn changes based on what we are currently curious or passionate about learning. More and more, these contemporary learning characteristics and experiences are being replicated within school time.

We are living and thriving in a time when *where* we learn, *how* we learn, *when* we learn, and *with whom* we learn changes based on what we are currently curious or passionate about learning.

We can no longer rely on any one tried-and-true methodology or practice because what it means to teach and learn is evolving exponentially. As mindful documenting learning educators, we must purposefully have the

- self-motivation of *life-long learners*, who are never satisfied with the status quo and see continued learning as part of their regular work and life;
- restless hearts of *adventurers* and *pioneers*, who are willing to try new things and step outside of their comfort zones and thrive on exploring uncharted territories;
- inquisitive minds of *scientists*, who push beyond what they can see with their eyes and imagine what could be by articulating their ideas, generating new theories, and providing evidence to dispute or confirm their thinking and reasoning;

- curiosity of *researchers*, who continuously search—and search again, try, test, and document their journeys to contribute to a larger purpose of advancing understanding and practices;
- courage of *innovators*, who continuously wonder “*what if . . .*,” and are not afraid to fail as part of the creation process;
- imagination of *storytellers*, who paint in vivid color a wide variety of narratives and share them with the world;
- passion of *mentors*, who instill and nurture a voracious love for learning and inquiry; and
- unselfishness of *parents*, who unconditionally love their learners and role of sharing and nurturing without expecting anything in return.

Documenting means more than being organized or supporting learning by providing evidence. It involves accessing and reflecting on one’s own learning processes and articulating what is taking place throughout a learning journey.

Documenting informs students and teachers about what needs to be in focus, whether coaching, mentoring, or providing direct instruction. Implementing the documenting types and purposes positively affect how teachers see their students (and themselves) as engaged learners. It naturally fosters and creates historic growth-timelines for students, and professionally for teachers and administrators.

While anyone can document a moment in time by recording a video, taking a picture, or writing down verbatim what is being said, documenting learning needs to be *strategic* and *purposeful*. A learner needs to be aware of what type of learning evidence he or she accepts and desires to capture. Teachers and students need to learn how the sharing of their documenting affects the quality of their documentation. Skills need to be developed to aid learners in understanding how media tools and platforms aid in capturing and sharing learning, as well as how media choices affect one’s ability to demonstrate thinking and learning visibly and/or auditorily.

Documenting learning creates purposeful and meaningful evidence. These artifacts play a critical role in conveying thinking and learning through four aspects: *visibility*, *meaningfulness*, *shareability*, and *amplification*. These aspects are components, in varying degrees, of the three documenting learning types: Documenting OF Learning, Documenting FOR Learning, and Documenting AS Learning (see Image 1.1).

Documenting learning creates purposeful and meaningful evidence.

DOCUMENTING LEARNING TYPES

There are *documenting nuances* among the three types that teachers need to be cognizant of when planning documenting opportunities for their students and for themselves.

Documenting OF Learning

Documenting OF learning uses documenting as *snapshot* product or performance artifacts that *display* learning moments. This is often the first type of documentation educators utilize. It conveys that a documenter or learner is beginning to think about the importance of documentation.

Image 1.1

DOCUMENTING

OF / FOR / as LEARNING



A visible, interconnected, meta-cognitive approach for creating evidence of one's learning process.



CONNECTED
There is a connectivity among the three documenting types.

WHAT ARE THE NUANCES AMONG THE THREE DOCUMENTATION TYPES?

	OF	FOR	AS
	Displays	Self/Others	Curation
			
<p>Documentation OF learning uses documentation as "snapshot" artifacts (products or performances).</p>			
<p>Documentation FOR learning uses explanations of selected "snapshot" artifacts to convey purposeful moments during and as a result of learning.</p>			
<p>Documentation AS learning uses curation decision-making for capturing and explaining purposeful moments as evidence of learning.</p>			

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Truth be told, documenting OF learning is often overused. Learners often record everything and anything, without necessarily interpreting what has been captured. Table 1.1 provides a few examples of common documenting OF learning artifacts.

Table 1.1 Documenting OF Learning Examples

Photography	Videography	Textual Recording	Audio Recording
Student brainstorming with others during his passion-project work time.	Student explaining the steps she took to create a culminating project with display board behind her.	Student's writing sample placed in a portfolio by the teacher.	Student singing a song.
Group of students presenting in front of a screen.	Group of students appearing giddy about their participation in an activity.	Three students wrote a Reader's Theater script and posted it on their class website.	Two students interviewing an Iraqi war veteran.
Group of teachers talking at a table.	Group of teachers talking at a table and hearing their verbal exchanges.	Teacher's blog post about his latest science unit, including photos of his students in action.	Teacher explaining highlights of attending a recent workshop for her professional-learning portfolio.

Documenting OF learning focuses on *the product* and attempts to answer these questions:

- What did the learner do?
- What is the result of the learning?

The answers are artifacts that are observable, visible, and/or audible to an onlooker. They are explicit representations of what was experienced. They are simply captured moments in time, whether shared in person, digitally, or on social media.

To aid in understanding the nuances among the three types of documenting learning, an iceberg metaphor may be helpful. Documenting OF learning is *the visible portion* of the iceberg that is above the water (see Image 1.2). It is explicit. It is known. No depth of cognitive or metacognitive thought processes are necessary regarding what is displayed.

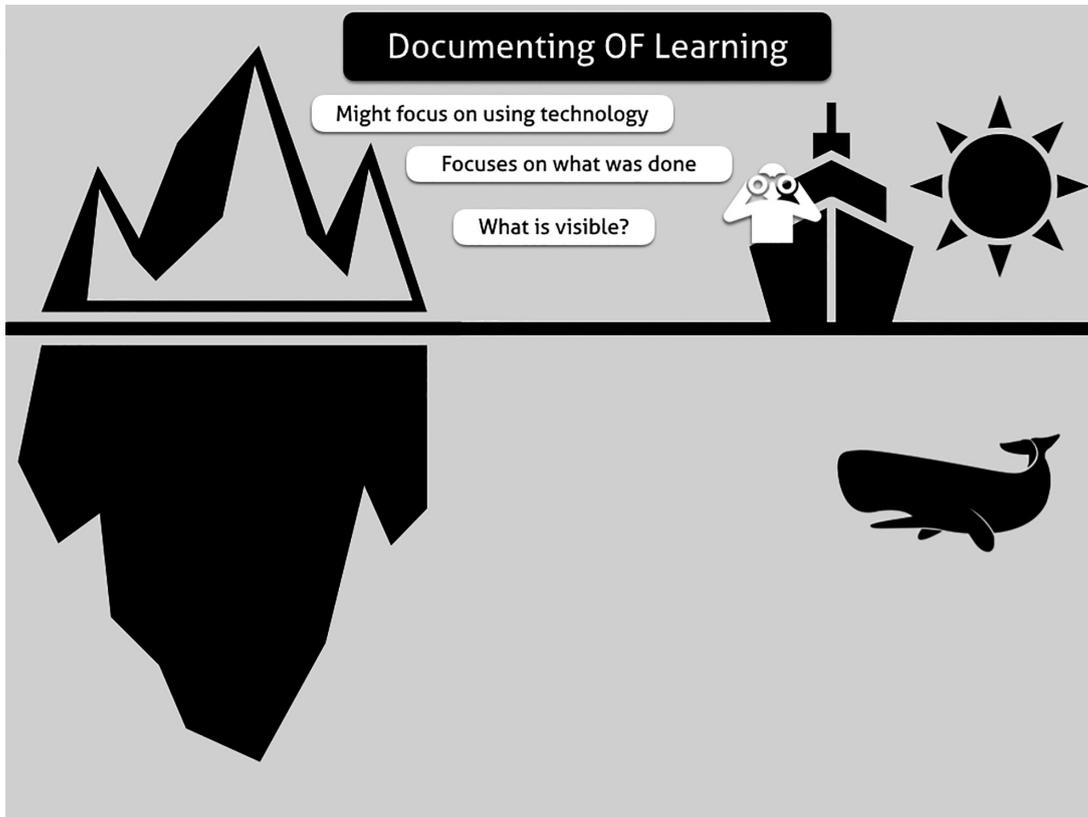
Documentation, when done too often only at this surface level, often feels like extra work for students and teachers, who see no real benefit or purpose beyond compliance. It is therefore imperative that learners have ample opportunities to experience and explore the two remaining types of documenting, which supports cognitive and metacognitive processes to take place while the learning is happening, and even before it happens.

Documenting FOR Learning

Documenting FOR learning uses *interpretations of purposefully selected* snapshot artifacts to convey evidence of meaningful visible and audible moments that take place *during, or because of*, the learning process. It is designed to *raise awareness* of a learner's changes, trends, or patterns over time. For example:

- During his makerspace project time, Mikeal has been purposefully taking and reflecting on a series of captured moments (photographs). Based on his reflections, he

Image 1.2



notices a trend in his behavior. He regularly gravitates toward particular partnerships for input on new iterations of his makerspace object. Mikeal annotates several selected photographs as evidence of his reasoning for why these two peers are his consistent “go tos.”

- Mrs. Gilmore collects and studies samples of her students’ writing over four weeks as evidence of their application of a writing skill she has taught and supported during Writer’s Workshop. She observes steady improvement in all of her students except for one, Nathaniel. While Mrs. Gilmore applauds the visible improvement by sharing some writing samples with the class, she holds a private conference with Nathaniel to discuss his artifacts. She asks him if he would like a peer to join them to discuss what the classmate is doing to apply the skill effectively. Nathaniel asks Marjorie to join the conference. Mrs. Gilmore explains to Marjorie why she has been asked to join them. As Nathaniel and Marjorie dialogue, she observes them comparing and analyzing their personal writing artifacts as they discuss potential ways Nathaniel may choose to improve his writing.

Documenting FOR learning goes beyond simply capturing evidence of learning by *digging deeper into the interpretation and application of what the artifacts convey*. This type of documenting can be divided into two categories, which can take place simultaneously:

1. Documentation for one’s own learning purpose. For example, someone learning a new metal braiding technique and working toward mastery of the technique films herself while conducting the braiding process to track progress over time.

2. Documentation wherein a learner makes his or her thinking and learning visible in order to help others learn when it is shared. For example, the metal-braiding learner films herself attempting the new braiding technique and angles a camera just so to capture the step that is proving to be the most difficult for her. While recording, she verbally shares the specifics regarding her frustration and asks viewers for suggestions to improve her braiding capabilities. She posts her video via Twitter with the hashtag #kumihimobraiding. In doing so, she is not only benefiting herself as a learner, but she is also benefitting the learning of those with whom she is sharing.

Documenting FOR learning focuses on *interpretation* and attempts to answer these questions:

- How is what I am learning now related to something I have previously learned?
- How will this learning influence and inform my future learning?
- Why do I accept this artifact as evidence of my learning process and progress?
- How could someone else learn from my experience—both my failures and my successes?
- What would I need to do to best document (capture) my learning today and at the end of the year related to _____ for me to see and hear evidence of my growth over time?

Note: While the pronouns *I* and *my* were used in the questions above, if a learner is involved in a collaborative learning experience, the pronouns would simply be changed to *we* and *our*.

Since documenting FOR learning asks learners to interpret, reflect on, and connect artifacts along a learning journey, this type of documentation often makes visible that which learners are *not even aware of* and provides time to interact with and examine artifacts to make connections and discover patterns or trends.

Continuing the iceberg metaphor, documenting FOR learning is the waterline *connecting the visible to the invisible*. It is in this space that hidden or implicit learning is cognitively explored, explained, and expressed (see Image 1.3). This occurs using multimedia platforms and tools that help learners strategically document to:

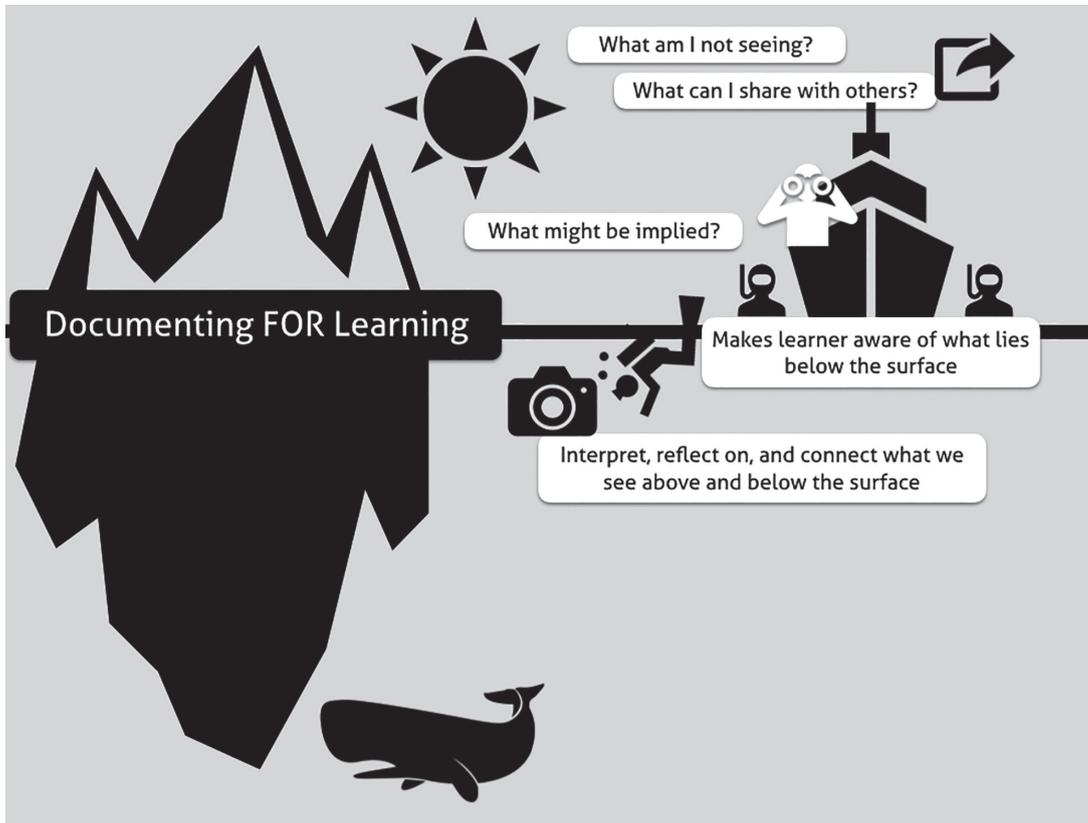
- freeze moments in time,
- rewind moments that passed by too quickly,
- unwind moments that cannot be seen easily by the naked eye, or
- capture moments taking place in two or more places simultaneously.

Students and teachers express that this type of learning opportunity is authentic and worthwhile, especially when they can share their learning process with others. Contributing to a community of learners deepens one's understanding, meaning, and purpose.

Documenting AS Learning

Documenting AS learning takes the documenting FOR learning process to an even deeper depth wherein the documenting process *becomes a critical facet* of the learning journey. This type of documenting uses *searching, filtering, and purposeful decision-making about what to capture* to express specific moments as evidence of one's learning process. Whether

Image 1.3



It's Time to Take Action!

You will encounter a recommended action step in each chapter. These steps are intended to connect you with other readers as you collectively generate examples and resources beyond what we can share with you in the timeframe that this book was written.

Through social media and the use of #hashtags and @handles, we encourage you to contribute your examples and experiences in documenting learning with a global community, while also gaining access to an ever-growing crowdsourced pool of ideas and resources.

There are multiple platforms you can choose from to provide your action steps' evidence of learning:

Twitter

Create an explanation tweet in 280 characters or less that shares the documenting learning opportunity. Include an image or video as the learning evidence, as well as the hashtag #documenting4learning, and/or mention @doc4learning.

(Continued)

(Continued)

Instagram

Upload an image or a video that express your learning evidence from your documenting opportunity. Include the hashtag #documenting4learning, and/or mention @documenting4learning.

Facebook

Create a post explaining your documenting opportunity. Include one or more artifact images or videos with your text; include the hashtag #documenting4learning and mention @documenting4learning.

Your Personal/Professional Blog

Create a blog post explaining your documenting opportunity and include images and/or videos as learning evidence. Tweet a link or share a link on Facebook to your published blog post using the hashtag #documenting4learning.

Now, it is time for your first action step . . .

Chapter 1 Action Step

Share an artifact from a documenting OF learning opportunity that your students experienced, or you experienced professionally. Change it to a documenting FOR learning artifact by posting a descriptive tweet with attachment, Instagram description, Facebook post, or blog post, include annotations* and/or annotexted** artifacts that aid in answering one of these questions: *How will this learning influence and inform my future learning? How could someone else learn from my experience—both my failures and my successes?*

*Notes or comments alongside text, image, video to aid in processing or explaining the media content.

**Act of annotating an image or video digitally by overlaying text, highlights, directional arrows, frames, or freehand drawing.

personalized professional learning or student choice-making, central to this type of documenting is the inclusion of

1. Active and reflective metacognitive opportunities as action researchers
2. Engagement in a connected learning community to share insights and discoveries
3. Authentic feedback and new considerations locally and globally

For example, Mr. Henkle is a member of a professional learning community (PLC) in his school and is stretching himself to grow and develop his project-based learning teaching practices. He strategically selects and annotates multimedia artifacts focused on *student voice and choice* from his class's four small groups. He consistently shares and amplifies his professional-learning evidence and realizations on his blog and via Twitter. He interacts with his blog commenters, as well as with participants in Twitter chats he attends. He applies

several of the suggestions made by his PLC and professional learning network (PLN) throughout the unit of study.

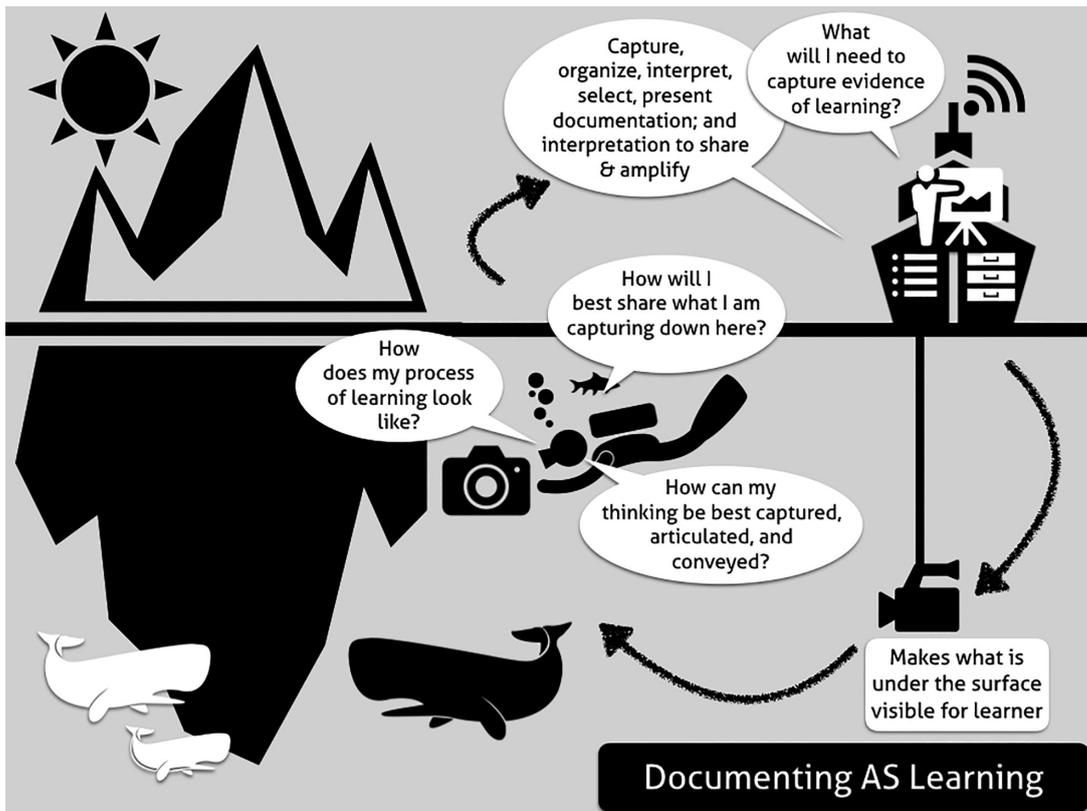
There is a deeper level of critical-thinking and metacognition involved when someone needs to make choices about what best portrays evidence of learning. Some of these choices will need to be made prior to capturing the desired evidence.

Documenting AS learning focuses on *the learning process* and attempts to answer these questions:

- What is worthy of being looked for and captured during this learning opportunity?
- What media platforms and tools will provide the maximum effect for capturing, reflecting on, curating, sharing, and amplifying my personal learning or the evidence of others' learning?
- How can my/our thinking be best conveyed visibly and audibly when considering the audiences who will be experiencing my/our shared and amplified learning?

When documenting moves from being a *product or cognitive tool to a metacognitive process*, it enters the depths wherein the iceberg is totally hidden beneath the surface (see Image 1.4). Documenting AS learning is not immediately visible or tangible. It is only viewable *with strategic preparation and implementation*. It is about the actions and metacognitive thinking taking place *while the learning is happening*. It is about exploring the what and how below the visible surface that aids learners *immediately and over time*. It also invites and engages others to join in the learning process through *sharing and obtaining feedback*.

Image 1.4



SUMMING UP

Based on a Google search, *documentation* is defined as material that provides official information or evidence, serves as a record, or the process of classifying and annotating texts, photographs, and so on.

While documenting OF learning is a valid place to begin purposeful documentation, moving to documenting FOR learning makes thinking about one's learning visible and/or audible, which leads to an awareness of what is involved in the learning process. Documenting AS learning adds a subtle, yet powerful, layer of metacognition that engages learners in determining how to best capture the learning process in preparation for purposefully sharing and amplifying new or expanded thoughts or ideas with a worldwide community of learners. (see Image 1.5). Casa-Todd (2017) quotes a student who shared from a personal experience, "I never realized that impact that your voice can have on others, but once I began observing the number of people that listened to me, I felt empowered as a student" (p. 17).

DOCUMENTING LEARNING PURPOSES

Before digging into the purposes, please note that documenting OF learning, documenting FOR learning, and documenting AS learning are *not* direct synonyms for assessment OF learning, assessment FOR learning, and assessment AS learning, although there are similarities regarding overall purpose.

The first two assessment types are associated with the work of Stiggins, Arter, Chappuis, and Chappuis (2006), who describe these terms as:

Assessments OF learning are those assessments that happen after learning is supposed to have occurred to determine if it did. They are used to make statements of student learning status at a point in time to those outside the classroom. . . . State assessments, local standardized tests . . . [and] within a classroom when we gather evidence to determine a student's report card grade. (p. 31)

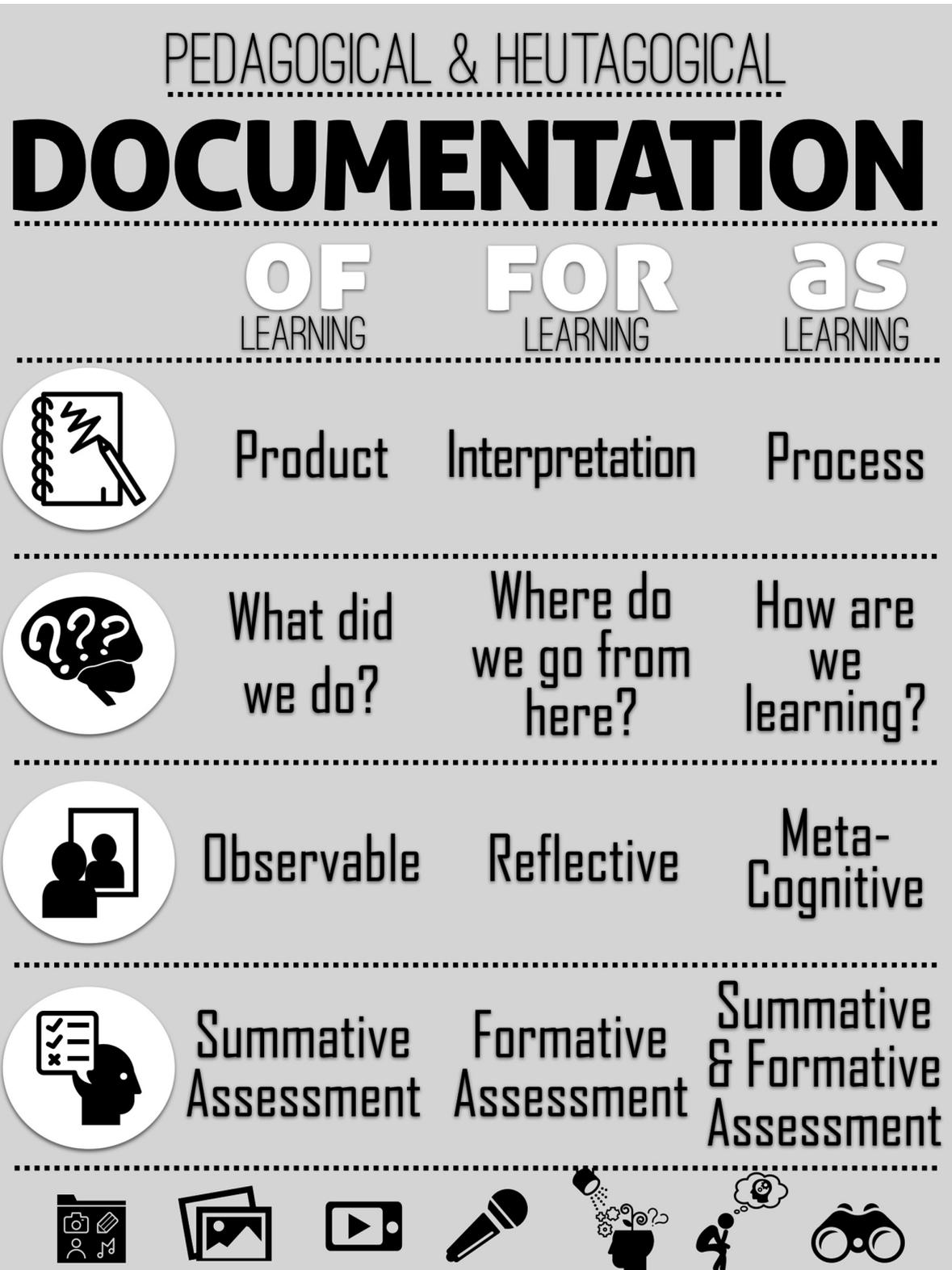
Assessments FOR learning happen while learning is still underway. These are the assessments that we conduct throughout teaching and learning to diagnose student needs, [and] plan next steps in instruction, provide students with feedback they can use to improve the quality of their work, and help students see and feel in control of their journey to success. on these occasions, the grading function is laid aside. This is not about accountability. . . . This is about getting better.

Assessment AS learning is described by Earl (2006) as,

The process of developing and supporting meta-cognition for students . . . as active critical thinkers, make sense of information, relate it to prior knowledge, and use it to construct new learning. . . . It occurs when students personally monitor what they are learning and use the feedback from this monitoring to make adjustments, adaptations, and even major changes in what they understand. (p. 47)

They are involved in determining *the next* in their learning (e.g., strategy, learning focus), as well as providing descriptive feedback to peers and to themselves as they grow in their capabilities to be reflective learners.

Image 1.5



The three *documenting* types have unique components and characteristics when compared to the three *assessment* types. While assessment is an integral part of documenting, the documenting learning framework serves purposes beyond assessment. The overarching purpose for documenting learning, especially documenting FOR and AS learning opportunities, is to allow learners to fully participate in their own learning processes, whether a young student or adult learner.

The overarching purpose for documenting learning is to allow learners to fully participate in their own learning processes.

As mentioned previously, documenting is often times based on an *OF learning* perspective. Fry (2016) refers to this as “flashy busywork.” Fry reflects on how learners can be more meaningfully engaged by producing, “Examples of visible student and educator learning,” rather than simply displaying the results of a learning experience. Ritchhart, Church, and Morrison (2011) mention that, “Documentation must serve to advance learning, not merely capture it” (p. 38). Please note: Documenting OF learning is not wrong.

Do not feel that *everything* related to student learning must be accomplished via documenting learning. If you begin by applying the documenting techniques, tools, and tips conveyed *once a semester or quarter*, you will have begun an amazing and worthwhile journey!

There are times when sharing a display to celebrate accomplishments is appropriate and worthwhile. What is problematic for students is when teachers allow time for only this type of documenting.

At first, documenting FOR and AS learning can feel timeconsuming. Hale and Fisher (2013) mention that modernizing, or upgrading, student learning should happen, “one unit at a time.” In other words, after reading this book, do not feel that *everything* related to student learning must be accomplished via documenting. If you begin by applying the documenting techniques, tools, and tips conveyed in this book *once a semester or quarter*, you will have begun an

amazing and worthwhile journey! Yes, it will be time consuming early on—not just for you, but for your students as well. It is a new way of thinking about one’s thinking. Two benefits to using FOR and AS learning opportunities is witnessing students’ authentic engagement and sense of empowerment.

Collaboration plays an important role in documenting FOR and AS learning, which Hale and Fisher (2013) also convey is an important aspect when modernizing learning:

We based *Upgrade Your Curriculum* on the premise that moving from *me* to *we* is an ongoing and essential process. Slow-and-steady upgrades or transformations, in which teachers (and students) work collaboratively to make strategic and specific modifications to current curricular elements, lead to modern, meaningful, and engaging experiences. We have found that once a collaborative culture is in place, participating in curriculum transformation continues to have positive effects on both teachers and students. (p. 3)

Documenting strategically and purposefully supports all aspects of one’s learning process. The specific purposes for documenting learning are fourfold: to make one’s cognitive—and most importantly, metacognitive—thinking *visible, meaningful, shareable, and amplified*.

Making Learning and Thinking Visible

Clark (2017) states that, “Visible thinking doesn’t always mean visual.” While there are many images and videos on blogs and other social media platforms, it is important to not fall into a visual trap and focus solely on conveying ideas or thoughts through infographic or photographic images. The heart of documenting is capturing the learning and thinking *while it is happening*, not simply the act of capturing what is happening or happened. Capturing one’s or a group’s thinking can happen via textual responses, narratives, or illustrated note taking, as well as audio reflections, interviews, or presenting video-recorded oral arguments to name a few.

The reality is that many young and adult learners are not aware of their own thinking when learning and do not proactively use thinking strategies and techniques to capture how learning is occurring. That is why it is imperative for learners to have ample opportunities in exploring how to make their thinking and learning visible, which awakens both cognitive and metacognitive processing.

To make thinking and learning visible involves breaking down the learning into self-awareness process steps. Project Zero (2017) states that, “When thinking is visible in classrooms, students are in a position to be more metacognitive, to think about their thinking. When thinking is visible, it becomes clear that learning is not about memorizing content but exploring ideas.”

Martinez and Stager (2013) add that,

Teachers should be concerned with making thinking visible, or making private thinking public. *Making* is a way of documenting the thinking of a learner in a shareable artifact. Stages of a project ‘under construction’ offer important evidence of productive thinking or scaffolding opportunities. (p.157)

Educators define and recognize learning acquisition differently. Some teachers will say that a student who gets all ten spelling words correctly on a test has learned how to spell the words, while other teachers will say it is simply an act of rote memory and will most likely be unable to spell the words correctly in a week without assistance. Some teachers may claim that reading a chapter in a book represents learning specific subject material, while others will say that is an assumption.

To bridge the gap of what a group of educators recognize as learning, the *learning-thinking* needs to be made visible. It is important for teachers to explore what constitutes learning-thinking in general, as well as for a particular focus or goal. They need to come to an agreement on the answers to such questions as:

- How do we recognize and acknowledge that our students have truly learned something?
- How can we recognize and acknowledge that we as adult-learners have truly learned something? Is it the same for students and adults?
- How can we recognize a pattern or trend of learning-thinking in our students over time?
- How can we teach/model the awareness and processes involved in learning-thinking?

Ritchhart et al. (2011) researched what it meant to capture learning-thinking discernibly. Ritchhart and some of his colleagues identified eight *thinking moves* that are, “Integral to

developing understanding, and without which it would be difficult to say we had developed understanding of the learning”:

1. Observing closely and describing what’s there
2. Building explanations and interpretations
3. Reasoning with evidence
4. Making connections
5. Considering different viewpoints and perspectives
6. Capturing the heart and forming conclusions
7. Wondering and asking questions
8. Uncovering complexity and going below the surface of things (pp. 11, 13)

Each of the eight thinking moves is supported in strategic documentation and moves documenting from a display to a documenting learning process. To expand on each of these thinking moves, consider:

- **Observing closely and describing what’s there**

Observing is more than simply looking. It is homing in on what is taking place with a deliberate purpose. Being charged with articulating and describing what is being observed concerning oneself and/or others throughout a learning opportunity elevates cognition and metacognition processes when documenting.

- **Building explanations and interpretations**

Embedding explaining and interpreting the meaning behind an action, behavior, belief, or phenomenon provides clearer evidence of one’s thinking and ownership of the learning. As learners document through creating explanations and interpretations of their artifacts, they experience how the *act of documenting* aids in the learning itself. One’s interpretation of a captured artifact can articulate background knowledge, viewpoints, and potentially, bias.

- **Reasoning with evidence**

While it appears relatively easy to capture documentation artifacts and present them as evidence of learning, there is often no visible-thinking reasoning to support the evidence’s claims. It takes thoughtful actions, such as annotexting a series of images over time.

For example: A kindergarten teacher, Mr. Flagg, shares insights into his classroom’s learning and discoveries through weekly class blog posts. Currently, his students are learning more about the interdependent relationships in ecosystems. Given his students live in Ventura, California, a study of the monarch butterfly is relevant and meaningful to them. He creates an initial post explaining the purpose and science-specific focuses for the unit of study. Mr. Flagg includes images (labeled drawings) of a few students’ original mental models of how the monarch butterflies interact with the ecosystem in Camino Real Park after they ate a picnic lunch there in mid-October.

While gaining knowledge about the life cycle of monarch butterflies and the *why* behind their migration patterns to California locations, Mr. Flagg continues to include iterative evidence of his students’ models (ongoing photographs of their evolving labeled drawings) in his blog posts. His final post includes their representation and explanation of the relationship between the butterflies and their choice of wintering among the park’s Eucalyptus trees and nearby milkweed.

Important note: While Mr. Flagg also includes photographs of his class caring for and observing monarch butterflies in the classroom (e.g., looking intensely at a caterpillar munching on a milkweed leaf in their butterfly camp), these photographs do not provide actual evidence of learning. Only when comparing the initial, iterative, and final drawing models does the evidence of learning actually convey the learners' sophistication of understanding and reasoning at a kindergarten level over time.

- **Making connections**

Krechevsky, Mardell, Rivard, and Wilson (2013) express that, "Documentation is largely about building connections—temporal, relational, and conceptual" (p. 75). When capturing artifacts, learners have two choices:

- Amass hours of recordings, hundreds of photographs, and piles of text snippets that can fill up analog or digital folders. These may or may not ever be used thoughtfully to aid in making connections.
- Strategically capture and organize artifacts to purposefully create connections between and among the artifacts that aid in deepening understanding. The act of learning is alive and visible to oneself and to others.

- **Considering different viewpoints and perspectives**

Taking advantage of artifacts captured by others allows learners to view their learning from multiple viewpoints. Documenting from varying perspectives allows learners to view and review moments in time, as well as study vantage points that could be outside their comfort zone (think of movie stars who do not like to view their own work) or beyond their isolated perspective, which deepens the acquisition process and allows the learners to articulate their thinking beyond themselves.

- **Capturing the heart and forming conclusions**

While documenting learning could involve capturing everything seen, heard, or read, it is counterproductive. A learner must contemplate how to best capture evidence of the learning process, failures and successes alike, which is the heart of one's learning-thinking. A learner needs to be able to answer these questions when planning what needs to be captured: *how will I use the documentation artifact to form conclusions about my current/future learning? How will the documentation artifacts inform what I need to learn (or teach) next?*

- **Wondering and asking questions**

Documenting is seen as a constant quest of wondering (looking) and finding potential answers. Through intentional documentation, learners and teachers conduct research through the inquiry process by posing questions, interpreting captured information, reporting on the findings, and asking more questions. Sheskey (2010) proposes learning is not about, "The answer anymore—it's the question." He continues, "At this point in the history of formal education, a change is occurring. Whereas before we gathered knowledge to become intelligent, now intelligence is measured by how well we apply knowledge to ask the right questions about how to solve the world's problems" (pp. 208–209).

- **Uncovering complexity and going below the surface of things**

While it is easy to set up a camera and record an event or a moment in time, it does not capture thinking. Taking a photograph captures the surface—what is visible and desirable to the eye of the recorder. It cannot convey complex underlying assumptions, perspectives, interpretations, or explanations. How someone may interpret what is being seen or heard may be influenced by such factors as cultural beliefs, prior experience, what just happened moments before and after the image was taken or video recorded, or what was happening just off screen. When students and teachers observe their learning, and need to make their thinking and meaning visible, it aids in uncovering the complexities in their learning processes.

Making Learning and Thinking Meaningful

Making learning and thinking meaningful is not an easy task. For the documenting process to be meaningful, learners need to ask themselves questions such as:

- How do I know this documenting process has a worthwhile purpose?
- How will this process be useful to myself, as well as to others?
- How will this process support my ability for creating learning-thinking evidence?
- How will this process communicate information that cannot be expressed explicitly?

Learners must see an intentional link between the act of documenting and a meaningful focus or goal. Documenting purposes can be thought of as *usefulness*. For example: *Does the documenting action support growth? Does the documenting action move learning forward? Does the documenting action tell a story about the learning?* Table 1.2 provides questions pertaining to potential purposes.

Table 1.2 Sampling of Documenting Learning Purposes

Does the documenting action . . .		
<p>. . . support growth?</p> <ul style="list-style-type: none"> • Does it provide intentional emphasis on demonstrating growth over time? • Does it show strategic and/or individual stages of learning over time? 	<p>. . . move learning forward?</p> <ul style="list-style-type: none"> • Does it capture more than just “what is,” so that it truly serves the purpose of moving the learning forward? • Does it provide an indication of the direction the learning can, could, or should take? 	<p>. . . tell a story about the learning?</p> <ul style="list-style-type: none"> • Is the thinking and learning part of a larger story that the learner is telling? • Can it break down the learning process into individual components wherein each component makes the nuances of learning visible?
<p>. . . give learners a voice?</p> <ul style="list-style-type: none"> • Does it authentically allow learners to share their unfiltered thoughts, ideas, and conclusions? • Does it empower learners to be self-motivated and self-directed, and convey that the learners are being taken seriously? 	<p>. . . cause ownership of one’s learning?</p> <ul style="list-style-type: none"> • Does it play an integral part in taking ownership of my own, or our, learning? • How does it make a difference to the learner concerning wanting to learn versus waiting to be taught? 	<p>. . . create opportunities for feedback?</p> <ul style="list-style-type: none"> • Does sharing it invite feedback by encouraging conversations that validate the work—whether ideas, questions, or conclusions? • Does it provide opportunities to obtain encouragement, constructive criticism, or interest-awareness levels?
<p>. . . encourage reflection and metacognition?</p> <ul style="list-style-type: none"> • Does reflection play a vital role in the documenting process versus simply an add-on, if only time permits? 	<p>. . . make meaningful connections to future learning?</p> <ul style="list-style-type: none"> • Does it help in bridging gaps of isolated and disconnected learning moments currently or over time? 	<p>. . . support collection through curation?</p> <ul style="list-style-type: none"> • Does it aid in preserving, maintaining, and archiving evidence and reasoning of personal/collaborative learning?

Does the documenting action . . .		
<ul style="list-style-type: none"> Does it convey a cognition and/or metacognition learning-thinking process? 	<ul style="list-style-type: none"> Can it serve as an anchor moment that can be linked to future learning? 	<ul style="list-style-type: none"> Does it aid in creating artifacts worthy of potential curation?
<p>. . . encourage community communication?</p> <ul style="list-style-type: none"> Does it encourage community involvement and authentic audiences? Does it communicate transparently how educators are responding to the needs of their modern learners and willingness to continually transform teaching and learning? 	<p>. . . embrace communication with a global audience?</p> <ul style="list-style-type: none"> Is it created with a global audience in mind and respects varying perspectives and multicultural awareness? Is it presented in multicultural, multilingual-friendly formats? For example: using military time 16:00, instead of 4 p.m.; provide both standard and metric measurements: write out the date instead of including numerically (e.g., in most countries 3/7/2018 [March 7, 2018] will be read as July 3, 2018). 	<p>. . . create professional learning opportunities?</p> <ul style="list-style-type: none"> Does it embrace educators as action researchers? Does it embrace a teacher's desire to improve curricular content or areas of passion and interest?

Making Learning and Thinking Shareable

In addition to content knowledge being learned in schools, there are critical skills and *now* literacies (which are addressed in Chapter 2) that learners of all ages need to build fluency in. Students and teachers are being asked to learn *how to learn*. The *now* literacies combined with the purposeful use of media platforms and tools require learners to apply strategies and techniques to aid them in *acquiring* and *sharing* their evidence of learning with others:

- Sharing thoughts, ideas, creations, and connections to help make sense of what is being learned.**

Global conversations are taking place on the immediacy to transform teaching and learning, including the necessity for authentic sharing. These conversations often lead to collaborations, fueled by educators who are passionate about impacting and empowering their students in meaningful ways. Learners gain leverage when they are given access and invitation to view other's learning, as well as ask for insight and feedback for their own learning. It is imperative that teachers also share their professional learning and growth to learn from their documentation artifacts and engagement with others.

- Sharing allows thoughts, ideas, creations, and connections to be disseminated quickly beyond traditional avenues.**

Appreciation for instant responses via an email or text versus snail-mail especially resonates with an older generation. Younger generations do not know what waiting for information really means. People around the world depend on instant, up-to-date information due to the ease of sharing, editing, and publishing technologies. Likewise, the ways that news, books, entertainment, and other kinds of information are now

delivered and shared is staggering, especially when one realizes the sharing is accomplished at no or a low cost for the recipients or end users.

- **Sharing successes and failures/mistakes digitally extends and expands learning.**

Twenty-first century teachers and students are pioneering new trails of what learning is and what it looks like using social media and digital curation. To *curate* in this context means the act of determining a resource's or artifact's value for a current or future learning need or task. Traditional learning pathways are not as they once were due to the reality that the world is advancing digitally in leaps and bounds. Just as pioneers of the past shared their success and failure stories as they journeyed to new lands to inform those who would blaze new trails after them, documenting while learning and sharing those journeys locally and globally aids and supports the journeys of others.

- **Sharing purposefully using social media can reach hundreds (and even thousands) of people instantly, and supports a learning-thinking model for others.**

Social media avenues continue to grow at an exponential rate because people want to share their thinking, reasoning, experiences, latest work, and resources. While this is beneficial, there is a difference between sharing for sharing's sake versus sharing strategically to gain desired insights and feedback from expertise around the globe. The latter is what needs to be incorporated and modeled by teachers and students who are participating in documenting opportunities.

November (2010) emphasizes that, "Collaboration and sharing knowledge are the highly prized skills. . . . Teachers will be valued for their ability to share their knowledge and solve problems about teaching and learning that an individual teacher could not solve alone" (p. 50). Educators need to shift from a traditionally isolated learning process to include sharing strategies and techniques that support more meaningful learning opportunities, which lead to better retention and connection capacities.

Sharing can take on many forms, especially in today's world. What was once difficult to share with people who did not live or work on the same floor, in the same building, or geographically in the same area can now be contacted and connected via an email, DropBox downloadable files, or an impromptu FaceTime conversation. Shirky (2011) makes the point that even the notion of sharing is evolving due to myriad social media and networking tools that allow anyone to produce, publish, and comment:

Expanding our focus to include producing and sharing doesn't even require making big shifts in individual behavior to create enormous changes in outcome. The world's cognitive surplus is so large that small changes can have huge ramifications in aggregate. We are increasingly becoming one another's infrastructure. This may be a cold-blooded way of looking at sharing – that we increasingly learn about the world through stranger's random choices about what to share – but even that has some human benefits. Our ability to balance consumption with production and sharing, our ability to connect with one another, is transforming the sense of media from a sector of the economy to a cheap and globally available tool for organized sharing. (p. 327)

Ritchhart et al. (2011) express that "Students need to see how others plan, monitor, and challenge their own thinking in ways that move them forward. Students need to see that all learners make mistakes and that learning often occurs from reflecting on those mistakes" (p. 29). Therefore, it is important to note that artifacts do not equate perfection. They are often works in progress designed to aid in gaining knowledge and understanding.

The act of documenting and creating artifacts naturally lends itself to making documentation shareable. What was once invisible becomes visible and allows moments in time to be captured, replayed, organized, archived, and retrieved. It also aids in making meaning and deepening meaning.

When documenting learning with a sharing perspective in mind, consider incorporating the following:

- Keep the sharing short and summarize or highlight the salient points. For example: Do not share hours of recorded video clips; instead, share short snippets that capture the thinking and learning in focus.
- Consider creating infographics to explain data and thinking about that data.
- Have an audience in mind who will be receiving or viewing the shared artifacts and anticipate potential questions, points of interests, and necessary clarifications.
- Determine the media platforms and tools that best aid in sharing the learning-thinking artifacts.
- Be conscious of privacy concerns when sharing personal or other learners' artifacts.
- Be globally aware and culturally sensitive when sharing artifacts with the world.

Making Learning and Thinking Amplified

When sharing thinking and learning beyond an *audience of one*, a sharer becomes acutely aware of the impact his or her artifacts can have on a larger audience. Therefore, the act of amplifying needs to be purposeful as well.

Amplifying personal or group learning-thinking is similar to a speaker's voice is amplified and reaches a larger audience, especially when the learners are strategic about using social media to reach the desired audience. Learners who want to gain knowledge and deeper understanding from those with whom they share find amplifying to be enriching and enlightening. It encourages active participation in globally connected communities of learners, professional educational conversations, and communication among thought leaders.

Transformational thinking and learning are positively affected through amplification because learners meaningfully interact with others *while their learning is still taking place*. Collaborating via amplification with experts from around the world provides evidence of its worthiness when witnessing the interactions students have with those who, in the not too distant past, were unreachable.

For example, a fifth-grade class was about to study the American Revolution. Their teacher wanted them to experience a learning opportunity beyond the pages of their textbooks and her own expertise. With Silvia's assistance, the class posted a collaboration want ad on her *Langwitches* Blog and tweeted her professional learning network asking for interested experts, teachers, and classrooms who would like to work with the students and provide varying perspectives concerning this time period in American history.

It did not take long before receiving inquiries and comments from experts, colleagues, and peers who were eager to connect and share with the class. Due to the want ad amplification, the class was able to skype and learn from:

- Travis Bowman, a sixth-generation descendant of Peter Francisco, a famous American patriot and soldier in the American Revolutionary War, who authored a historical novel about Francisco's life titled *Hercules of the Revolution*.



QR Code 1.1

Scan this QR code to read the ***Wanted: Collaboration Partner for American Revolution*** blog post.

<http://langwitches.me/americanrevolution>

- Richard Byrnes, a previous high school history teacher and well-known creator of the *FreeTechnology4Teachers* website.

While local interactions with peers and colleagues within school and district learning communities cannot be underestimated, it is imperative that educators realize the power of participating in a living, breathing learning culture that amplifies to reach a global audience using social media platforms and tools. Documenting that includes amplification embraces and encourages modern forms of learning that accesses expertise, receives meaningful feedback, and connects beyond the limitations of zip codes and language barriers. When learners become acutely aware of how their learning grows due to amplification, it transforms their pre-planning for how to best amplify learning and thinking.

When learners become acutely aware of how their learning grows due to amplification, it transforms their pre-planning for how to best amplify learning and thinking.



QR Code 1.2

Scan this QR code to read *Framing a Skype Learning Experience*.

<http://langwitches.me/learning-experience>

Amplifying learning often brings unexpected and memorable surprises. For example, fourth graders created book trailers for fiction books they had read. They published the trailers via their student blogs by embedding their book-recommendation videos. The author of one of the recommend books received a Google alert that someone had posted something about her literary work. She was able to locate the specific student's blog and video trailer about her book. She contacted the student's teacher to see if she could use the book trailer on her own website. The teacher, knowing an incredible opportunity to continue the amplification was possible, asked the author if she would be willing to skype with her class to talk about being a professional writer and share her thought process when she wrote the recommended book. The author accepted without hesitation. Based on the actions of sharing the online book review and someone else unrelated to the class amplifying the student's recommendation, an extended amplification learning opportunity now benefited the entire class and author.

Sharing learning-thinking strategically online creates greater degrees of amplification—both expressively and receptively. Here are a few amplification considerations:

- **Digitize an artifact.** Digitizing allows learners to be able to share their artifacts online. Digitizing is the act of converting images or sound into a digital format. When the digital content is uploaded, sharing and amplification have begun. An audience—beyond one or a few who are physically present—who view and/or hear what the documentation artifacts are conveying allows thinking and learning connections to be enhanced.
- **Consider different media.** Choosing to produce evidence of learning using a variety of media and social media applications allows online audiences to read, look at, watch, and listen to learners' artifacts in multiple forms. Amplification happens when learners purposefully and strategically go beyond traditional media, which primarily has been text-based, to embrace different media forms, including the mixing of mediums to create new forms.
- **Extend learning opportunities.** Amplification can extend the learning time beyond a traditional school day or professional development hours. It is designed so the

learners' reach is 24/7 accessible. Traditionally, the only expert in the room was the teacher. Magical learning moments happen when teachers see themselves as learners and allow students to express their current knowledge—both accurate and inaccurate, plus pose inquiry questions that invite peers, experts, and eyewitnesses globally to interact with them and their documentation artifacts.

- **Extend the reach.** Until recently learners have not had a reach beyond their personal scope of families, friends, teachers, professors, and classmates. Today, extending one's reach is multifaceted. For example, an extended reach happens when a blog post is uploaded, cross-posted, and linked strategically to others using social media, such as Twitter. By using strategic social networking, connections, collaborations, and dissemination paths can be immediately beneficial to learners. *Disclaimer: Oftentimes the act of uploading content online is not enough to successfully extend the reach. The student or teacher must participate in building and interacting with professional learning networks (or know someone who does) to alert, contact, and disseminate the documentation.*
- **Connect with a global audience.** Learners' reach can be considered amplified when artifacts are created or uploaded in a password-protected environment (e.g., accessible only to classmates, colleagues, or limited community members). A broader amplification happens when artifacts and inquiries are sent out to the world. A global audience affords students to hear and learn from differing perspectives, viewpoints, and obtain resources that are unavailable when confined to a controlled local audience. Understandably, when learners are permitted to share and amplify globally, it comes with responsibilities for both students and teachers.
- **Have your voice heard.** Making a difference in the world is possible through amplification and reaching a global audience. Even children as young as four and five years, with the help of their parents or teachers, are finding their voice and being heard. More and more children are being asked to be keynote speakers at educational and business conferences. This is because the traditional limitations of age, physical capabilities, and financial limitations are melting away due to the access that social media and network connections allow. Amplification is a learning strategy that allows student and teacher voices to be heard. It is a powerful realization that anyone, young or old, has something valuable to share with the world. For example, search for either of these hashtags and explore the amplification taking place: #kidscanteachtoo, #studentvoice.

SUMMING UP

Teachers must see themselves as active learners—both in the classroom alongside their student-learners and professionally with their colleagues. When all learners are provided ample documenting opportunities to transfer their learning and understanding from *within a content area, one content area to another, one class or course to another, and one year to the next*, their understanding of how they learn and what they are learning is purposeful and meaningful. Making meaning emerges and evolves naturally when documenting opportunities requires ownership of one's learning actions. This is because the act of documenting the learning is occurring while the learning is taking place, not as a result of it.

Being cognizant of one's strategic actions to capture, share, and amplify learning-thinking artifacts at specific moments in time, coupled with revisiting artifacts over time, are essential to the documenting learning framework.

GOING BEYOND

To amplify your reading beyond this book's pages, we have created *discussion questions and prompts* for this chapter, which are located at www.documenting4learning.com. To extend your thinking, reactions, and responses, you can connect with other readers by leaving comments on individual chapter's discussion posts on our [documenting4learning](http://documenting4learning.com) blog.

We also invite you to contribute and share your artifacts in other social media spaces to connect with and learn from other readers around the world using the #documenting4learning hashtag on Twitter, Facebook, or Instagram; or by mentioning @documenting4learning on Facebook and Instagram, and @doc4learning on Twitter.