The Importance of Reflection in Hot Water:

Examining Organizational Use of Reflection with Errors

How a Transfusion Medicine Service, in the evaluation of an error, can use the practice of reflection to

develop staff competency as a means to identify necessary organizational changes.

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An Error as a Journey

Let's take a mental journey together. Visualize yourself having just donated blood at a local blood donor center. You were recruited to donate through multiple e-mails, scheduled an appointment in your busy day, you tolerated all the very personal screening questions, sat through the mini-physical assessment, and then finally, endured the actual collection process. Not only have you given blood which is precious to a patient, but you've given up something fairly precious to you – your time. You finish up your experience by having your snack and finally getting discharged; back to reality. Even though it was a hassle, you feel pretty good about what you did. After all, giving the "gift of life" is pretty special and selfless.

Now, imagine that after all of that, your donation wasn't actually used. Not because there wasn't a patient sick enough to need it; in fact, there's a great number of patients who need your blood. Not because a test result indicated your blood couldn't be used; in fact, your blood screened acceptable and safe for transfusion. It turns out - your donation wasn't used because of an error made in the collection process, such as incomplete or not performed quality control, improper eligibility or incorrect collection procedures. What do you think then? Maybe you think of the loss to the patient in need; maybe you think of all the time you spent in the donation process. What if this error posed a risk to *your* health or safety, or to the recipient? And, what if you knew the facility had made this error in the past, and yet the error repeated? Would this impact your altruism? If you knew this, would you donate again?

Such would be the thoughts of a donor who was informed of errors in a blood collection facility. Therefore, such are my thoughts in the Transfusion Medicine Service (TMS) where I work. Part of my obligations as Quality Assurance (QA) Manager is that I am involved when an error has occurred to lead a review. As part of the review, we evaluate the error and identify the root cause(s), assess the impact

of the outcome, review the process (AKA system) for changes to prevent reoccurrence, and identify opportunities for changes that make the process better.

From the time the error is identified, to the time we actually implement a change, 1-6 weeks (sometimes more) can elapse. But, we're not even done at implementation. We then have to wait and go back to verify the effectiveness of the change. Did it help reduce the risk of harm or reoccurrence? If so, our job is done. If not, we need to take further action to rectify. Kemp described this process in 2005, referred to as Plan, Do, Check, Act (PDCA), and it is the hallmark cycle of error review seen in many TMS facilities. Kemp summarizes PDCA as the skill to "…plan work that solves a problem, do that work, check to see if [if an organization] got the results [they] wanted, and then take action to make use of what [they] learned" (p.33).

Sometimes, we find out that maybe the change wasn't effective at all. We may even find out that the change never actually "stuck" in the first place. Hours and hours of work, planning, communicating, and … it turns out that it was never truly accepted by the staff, so of course it wasn't effective. How could it be effective if nothing really changed in their practice? By performing root cause analysis, Kemp (2005) described that the goal is to "…use the information about errors to go back and change the process so the error won't happen again" (p. 82). If we're going through the root cause analysis process, and identifying changes - why doesn't it always work?

It's during the times that I start to think and wonder. I think of the safety for the recipient, and the donor; but I also think of all the time people give when they donated; the constant need for blood donors to fill the need for blood; and (selfishly) even the time I put in to review the error. And I feel frustrated. And I wonder why it didn't work. But by then, I'm likely told of another error that has occurred…and I'm off and running! No time to feel frustrated; no time to wonder. Back to gathering

who, what, why, where, when…back to planning changes, back to implementing…back to attempting the PDCA cycle. However, sometimes it feels like a less than effective cycle.

And so, our journey ends in the here and now. But it begs the question - what's really going on here? For much of my time in QA, I have thought – *why* do we make errors? What can we do to *NOT make mistakes* and make our processes "error prone" to staff? I've even thought - why can't staff JUST FOLLOW THE Standard Operating Procedure (SOP) the way it's written? It was only through the research of this paper that my line of questioning shifted and instead I began asking – why aren't we *collectively learning* from our mistakes? What can we do, individually and as an organization, to review an error and actually promote learning as a result? And, why can't that learning extend to others in our team, as a catalyst to smart changes that are truly learning moments shared by staff?

What can I learn about practices that support a culture of organizational learning in the evaluation of an error? Specifically, how can the practices of individual and group reflection best be utilized to develop competency and help identify changes as a result of an error?

I will explore the above questions throughout this paper and present the following proposal for an idea that combines different models for reflection into one that a TMS may perform for error review:
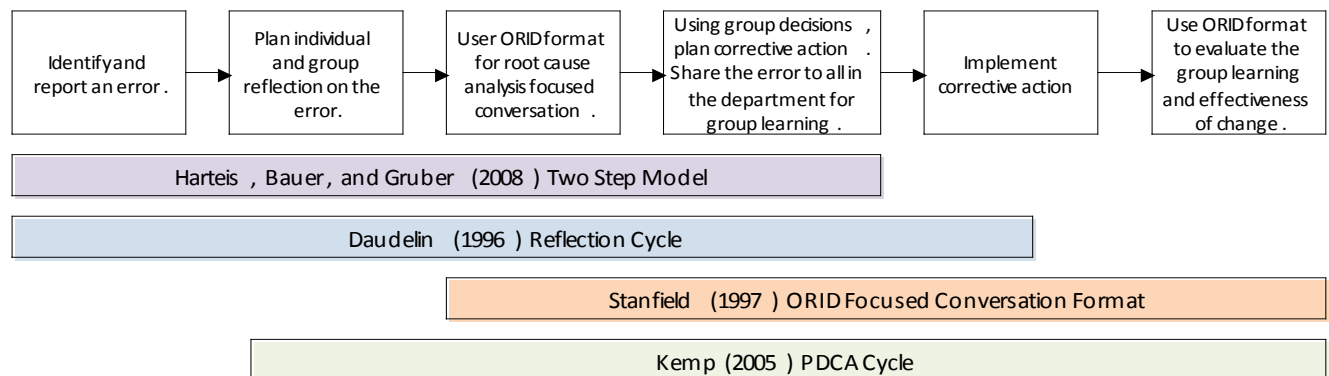
Why Me? Why Errors? Why is this challenging in a TMS?

Before I move on, it's important to take a moment and reflect on why I'm truly vested in this subject. To get a good understanding of why things happen in my TMS, it's important to know who else is supervising it, *outside of our facility*.   As Motschman (1999) describes – because a TMS deals with human blood which falls under the Food and Drug Administration (FDA) definition of a biologic, at the largest regulatory (governmental/federal) level the FDA sets rules by which a TMS must operate. Additionally, smaller layers (yet, not less rigorous) of volunteer accreditation agencies set regulations, like the American Association of Blood Banks (with a primary focus on blood collection and transfusion), or the Joint Commission (which ensures safe practices are in place for patients, including the activities that take place in a TMS) that a TMS must also follow (p. 165).

Each of these agencies has their own set of regulations or standards. And, each believes they are offering the best approach to patient or donor safety; for the purposes of this paper, these beliefs will not be challenged. Each agency performs unannounced inspections of a TMS in which they are free to investigate and inspect all aspects of our processes and our records. Why these agencies are important for this paper is because they provide "rules" in the form of multiple sets of standards by which our TMS must interpret and establish our own SOP's, processes, and practices. Motschman (1999) elaborates specifically on the FDA requirements that a TMS have "…procedures for review, evaluation, investigation, and correction of manufacturing errors and accidents…in place and exactly followed" (p. 165). Therefore, a TMS has a consistent outside manager that we report to in addition to our internal facility leadership.

While each set of regulations/standards is slightly different in their perspective, there is a common thread to all of them –they require that a TMS operate within a quality system structure, and

have some function of QA present. "Quality system" and "QA" can be sometimes subjective terms, but

n 2005, Kemp summed up QA encompassing:

> … activities outside the realm of checking and quality control. [It] includes cross-departmental communication about quality, communication with vendors, redesign of the product or process to prevent error, and a variety of audit processes to make sure that work and management are being done to standards or in accordance with best practices. (p 78)

QA activities are therefore performed to enforce integrity in work processes and have an onus

of finding weaknesses/errors on the operations side with the intention of process improvement.

Because QA is not a part of operations (i.e., not accountable), QA helps remove any responsibility bias.

Because QA is not responsible for the productivity of procedures performed in operations, they do not

have the bias which may prohibit them from identifying and reporting errors. A manager or employee in

operations may feel pressure that reporting errors is a poor reflection on them or their operations, and

therefore has an incentive to hide or cover up errors. The balance needed between operations and QA

was illustrated by Moore (2003) and can be seen in the *Figure 1: The Balance Between QA and*

Operations Within an Organization, following this paper. In the TMS where I work, I am the only person

in QA, and I use our quality system to schedule, monitor and report on many different activities to

ensure a state of control in our processes. I report to a leadership team, who then report up the chain-

of-command within the hospital organization. Therefore, I have a vested interest in our errors and error

review process.

Identifying Errors – Including Human Error

For a TMS to maintain a state of control in its processes, their quality system must include QA

activities that go looking for trouble (errors) before *trouble* finds them. Sometimes trouble is found on

our own (via an internal discovery); sometimes trouble is found during an inspection (via an external

discovery.) Without doubt, internal discovery is far better than external. Kemp (2005) points out that to

really find trouble internally, it's necessary that *all* staff (not only QA and managers) know what it looks

like (i.e., develop an error sensitivity) so that they can prevent it before it impacts the patient/donor and causes a safety issue , or so they can report it once it occurred (p. 52).

Harteis, Bauer, and Gruber (2008) studied this sensitivity level by evaluating worker's and manager's interpretation of error situations. Their study showed that while there is a difference in the *interpretations* of the errors, there was not a large difference in the *identification* of errors between the two groups. They went on to explain that there were differences in interpretation because the managers saw the opportunity to learn more readily than the employees, even though both groups could identify an error (p 227). This, then, evidences the possibility that all errors can be identified and therefore reported by employees, even if the interpretation for learning is unknown at the time.

Errors of all sizes are important for a facility to report and evaluate, and in an open-reporting environment staff needs to feel comfortable to report them. To really foster employee reporting, the error system must stand with a non-punitive spine as its support. According to Moore & Foss (2003), this is important because "nothing will dry up the fund of information on errors as quickly as the fear of retribution" (p. 1518). This means in a TMS, employees must believe that discovering errors is like finding an opportunity for improvement and learning, and not see them as failures.

Of course, it's logical to wonder – can *every* error really be identified as an opportunity for learning? Couldn't some just be chalked up to human failing? When I reflected on my own personal experience in a TMS, the training had always been performed using error-avoidance techniques. Avoid the error by doing *exactly* what the SOP instructs me to do. Follow the SOP, and I'll be error-free! (Or at least I'm free from accountability if I followed the SOP, but the SOP was wrong, and I made an error!) This leads to a "follow and don't question" mentality; this does not promote critical thinking in employees.

This experience, I believe, was the stem for my original thoughts about errors, wondering why people make errors, and wondering why they can't just do it right? It had been, in some sense, indoctrinated into me through all my years of education and training! That being said, I truly understand and respect that SOP's in a TMS need to be detailed to reduce variation in practice. However, SOP's don't represent the real world *all* the time; they try to be written to cover the real world *most* of the time. In the real world- walk into any TMS and you'll see staff multi-tasking, responding to needs of customers, donors and patients, and reacting to the social environment they're in. SOP's aren't written to include human social interactions, disruptions, and the unpredictable moments that occur in any given day, *most* of the time.

Indeed, humans are unpredictable at times, and one of the most understandable threads to humanity is that we are capable of making mistakes. And as Bauer and Mulder (2007) described, humans working in dynamic workplaces are even more prone to making errors, because in "work environments, where changes in relevant knowledge, procedures and methods are frequent, employees have to adapt continually. Therefore, there is an increased likelihood of errors to occur" (p 121). According to Bauer and Mulder (2007) organizations need systems and processes planned to minimize the chance of an error occurring, but also strong enough to tolerate an error (by catching it from a secondary source) before it has the chance to cause harm (p. 122).

Using Errors as Learning Opportunities

Furthering this thought of errors, in 2007 Bauer and Mulder performed a study about the types of errors found in healthcare and proclaimed that they could be largely classified into two categories – slips and lapses (SL), and knowledge-and rule-based errors (KRE) (p 123). Refer to the Appendix 1 - *Classification of Human Errors* for further descriptions. Bauer and Mulder (2007) placed the argument that SL's are examples of system errors in which the process, procedure or hand-offs are incomplete,

therefore the *system* needed evaluation as it set the individuals up to fail; and KRE's were examples of errors in which individual and group *learning* could occur (p. 123).

Reviewing errors exclusively as "system errors" was a consistent theme during the research for this paper. And, I have personally attended professional educational conferences in which the stress on error management was that the error was *always* due to a system error, and never an individual/human error. While Bauer and Mulder (2007) admit there is merit to this concept, they take aim at the "one size fits all" classification for errors. They believe that to solely rely on this during error management "disregards the potential of individual development in reducing specific types of error. [And it] further neglects the contribution of errors to individual professional development and team learning" (p 122). They provide the concept that while an outcome of errors is to correct the event and prevent reoccurrence, and to provide opportunities for individual learning, it can also be used for group learning and even group development.

Learning from errors, as stated by Bauer and Mulder (2007), is a constructivist activity – whereby the individual learns by processing the information and creating the learning (i.e., engaging in it) (p. 131). Instead of traditional training methods which rely on the individual to learn passively only what *to do* (via error-avoidance training methods), when learning from an error the individual is learning how to do something by learning *what not to do*. In 2008, Harteis, Bauer, and Gruber described this type of learning as *negative knowledge.* They included in their discussion of negative knowledge that it, combined with traditional forms of learning, helps "individuals to understand the nature of a complex world" (p. 225). Through learning via negative knowledge we are allowed to make associations and draw connections that would not otherwise be evident from traditional learning alone (p.225).

To truly allow *negative knowledge* to be at its most effective, Harteis, Bauer, and Gruber (2008) propose that a two-stage cycle be used: the first part of the cycle being the use of reflection, followed by

the second which includes sharing the lessons learned with all in the organization (p. 225). While this seems like a relatively simple (two-step) process, they realistically leverage it stating their doubts "…to what extent mistakes occurring in everyday work are really reflected on at the individual or organizational levels, in order to provide opportunities for learning" (p 225). Therefore, while a two-step process may seem relatively easy to understand, it's obviously more challenging to actually use.

A Definition of Reflection

Before describing the use of reflection, it's worth delving deeper into defining what reflection really is, anyway. Høyrup in 1999 delivers a concept of reflection by first warning readers to not think of reflection as a solitary cognitive (introspective) activity. He broadens the concept of reflection and suggests that a distinction is needed between reflection and "critical reflection", and goes on to add that there are even different levels of reflection: individual, interactive, and organizational (p. 443). Høyrup (1999) goes on to further that while reflection can lead us to think about a singular situation by posing questions, critical reflection requires us to expand beyond that singular situation. It requires us to ask more questions, explore our assumptions, define our beliefs by questioning the meaning of what we do, and more importantly sometimes - why we do it – with the spirit that in doing so, a deeper learning will take place (p. 445, 448). This deeper learning translates into competency and comprehensive development.

This description of reflection was echoed by Gartmeier, Kipfmueller, Heid, and Gruber in 2008 when they concurred that critical reflection was needed at work, but added that reflection could be activity-oriented, and social. They go on to cast critical reflection in a broad (and simpler) light as something with the potential to highlight the complexities that exist in a workplace environment (p. 6). They continue that without the critical reflection aspect, the potential that is possible (such as professional competency, group learning, and change) would be lost (p. 7). It is within these two

representations and definitions of reflection that I could begin to respect and understand the true potential of successfully implementing this tool. However, as with any implementation, it too can come with its own set of challenges.

An Organizational Perspective of Reflection

For an organization to consider a change to using reflection, it's important that to evaluate whether it's "worth it" for organizations to make the change in the first place. In 1996, Daudelin described benefits of the organizational use of reflection which included the fact that it:

- generated a feeling of camaraderie, trust, and fellowship during group reflection;
- allowed for a slowing of things for a moment (stopping the action mode, and initiating the reflection mode) to evaluate the situation collectively; and
- allowed for group learning to transpire by sharing personal insights and dilemmas (p. 45-46).

Gartmeier, Kipfmueller, Heid, and Gruber supported this thought further, as in 2008, they described the outcome of reflection as a way to:

- increase learning potential;
- allow learning to occur via experiential knowledge; and
- foster professional development and competence (p1-11).

So, clearly there are benefits to performing reflection at work – especially in the evaluation of an error, when an organization has a real reason to reflect. And, reflection isn't exactly a new tool - given the fact it has historic ties back to the time of Socrates, it's probably one of the oldest business tools available. So, why then, isn't it used more frequently in organizations?

Daudelin provided a possible explanation in 1996 by stating "…managers have always placed a higher value on action than reflection" (p. 37). So, in other words, the slowing down time that it takes to perform the reflection is seen as loss-of-productive-time that could be spent "doing something" *productive* (p. 37). This thought certainly echoes the action-oriented, task completing environment of any TMS where I've worked, which may help shed light on some challenges I'll face.

An interesting argument challenging the use of reflection was presented by Ixer in 1999 around the use of reflection in that he presents an argument that it requires everyone involved to have the same *understanding* of reflection. Ixer suggests that when one starts reflecting, they would in essence need to "stop working", because they need to stop all action. He supports that thought by adding during reflection the employee must rely on tacit knowledge if they are continuing to work while beginning a reflection process; therefore an employee isn't capable to be in both worlds at once (p. 518). However, Daudelin (1996) provides research that supports the use of reflection to foster productivity and suggests that a small investment of time to get the largest reward from reflective practice (p. 47). And, since the focus of this paper is the use of reflection in error review – we can acknowledge Ixer's argument, and leave it unchallenged, since in this setting, action has stopped anyway.

Therefore, when thinking about using reflection at work, an organization must acknowledge the challenges it may present. As stated by Gartmeier, Kipfmueller, Heid, and Gruber (2008), the largest challenge would have to be if reflection is not accepted by the staff involved. This, understandably, would curtail the potential of its use and therefore, reduce the possibilities. Another challenge they presented is if an organization has non-reflective, but productive, employees (or managers) – so that the use of reflection will not be endorsed or have its potential understood, (even though there may still be a benefit from it) (p. 7). In addition, in 2000 Morrison provided another challenge of "organizational silence" which can prevent an organization from obtaining a culture of learning. Organizational silence occurs when managers themselves have a fear of negative feedback, and stated that when managers view differing opinions from subordinates, they can feel threatened (p. 708). This leads to a thought process that disagreement is always "bad", and that unity is "good" – even if this unity is just silent following (p. 710). A personal challenge that I can add is that an inexperienced facilitator could alter the

outcome and acceptance of reflection at work, as well, if the process has a rough induction period; therefore, employees who were accepting may change their mind.

It is noteworthy to accept that these challenges parallel the challenge of implementing almost any change in a workplace; they are not specific to reflection. Without the buy-in or acceptance of the staff involved, the ability to see some improvement from the change (either in productivity or morale) – then, change is not possible. This is an appropriate and important challenge to overcome but the focus of this paper was in the research of using reflection, not in the implementation of reflection. For this reason, these challenges are acknowledged, but will not be pursued at this time.

I'll admit, it's been challenging for me to *not* think of reflection as a solitary activity, given my own assumptions that reflection required sitting quietly, being pensive, and pondering through writing; all things which have never been part of my nature. However, in the research of this paper I was exposed to examples of reflection which demonstrated the social nature in which it could exist. Daudelin (1996) provided concrete examples of reflective activities that can be done either individually or in a group. These all were aimed at a thoughtful examination of a subject (i.e., an error) with a goal of identifying learning opportunities, connections, and areas for growth. These examples can be seen in Appendix 2: *Examples of Reflective Activities.* It was eye-opening to me that Daudelin only lists journal writing as one of six examples of solitary reflection practice, and that at least four of the group activities could be well utilized in error review sessions (problem-solving meetings, project review sessions, informal discussions with colleagues, and feedback discussions) (p. 42).

Facilitating Reflection Using ORID Questioning

At the heart of reflection is the well-defined and well-directed set of questions which leads to a dialogue. Thinking about "questioning the staff" may bring to mind images of a long table, which on one side sits "the managers", and on the other side sits "the employees." The line of differentiation clearly drawn – and the questions are coming from one side, responses from the other. This almost inherently implies that the managers know what the "right" answer is, and they are testing the staff to see if they can state it. This did not align itself with my image of group reflection, however. Stanfield (1997) provides a practical guide to breaking the mold of *across the line questioning*, and instead presents group reflection in the format of a "focused conversation" (p. 17.)

As described by Stanfield (1997), a focused conversation is a method using the ORID format (objective, reflective, interpretive, and decisional.) A facilitator leads the group through the process by asking the questions – and preventing the group from rushing to the decisions until they have passed through all phases. This process is designed to open the thinking of the group so that group input is used to, in the end, make a group decision. I see this being invaluable during the evaluation of an error, but I also see it being invaluable as an added part to the effectiveness check in our TMS, as a way of re-circling back with the staff to identify how the change is affecting them. This can be a mechanism to either help identify the challenges or success of the changes. For an example of the ORID format, please see Appendix 3: *Examples of a Focused Conversation Plan, using ORID Technique.*

In thinking about using ORID for review of errors at work, it's understood that this will require staff to talk openly about their errors, and in doing so could lead to them feelings of judgment and vulnerability. Therefore, the facilitator must not come from a place of judgment. Cannon and Edmondson (2001) described that "poor handling of conflict can lead to a hostile environment in which trust and interpersonal relationships break down. Under these conditions, fear of being ridiculed or blamed …may keep people from discussing their failures or disagreements" (p. 165). With proper

handling, however, they go onto describe that deeper learning can occur (p. 5). This approach must not only live at a managers level, it really must come from the organizational level and be supported and exemplified at the manager level.

Reflection as an Integral Part of an Organizational Culture of Learning

All of the activity described thus far has been at the individual level – however, it's important to remember that the individual activity must be supported at the organizational level. In 2001, Billett described cooperation between the individual and the organization that must exist for employee learning to occur. Billett describes that the individual must possess the engagement and desire to learn, but the organization must provide the opportunity to gain new knowledge via activities that the individuals experience in their every-day activities (p. 210). Occasionally, however, the individual and the organization fail cooperate. Refer to *Appendix 4*: *Factors that Influence Workplace Learning* for a list of influencing factors that break down the cooperation (p. 210). While Billet does not specifically reference errors, the factors presented can be assimilated by a facility attempting to learn from errors. For example, it's possible that managers have assumptions about an employee's competency when they are involved in an error that could affect how the manager provides the opportunity for them to learn.

Organizations must support the practice of reflection in order for it to be used at the individual level in departments. Cannon and Edmondon (2001) cite a challenge of an organizational culture of learning from errors is that vision statements, missions, or goals of the organization can live in one layer of the organization, while managers and employees live on another layer. If the manager who performs a staff member's annual evaluation views errors as a failure to meet their job requirement, then understandably, staff will not feel secure in reporting their errors (p. 167). In their research, they found that teams within an organization can have varying understandings and beliefs about failure (p. 173). This helps to provide an understanding about the uphill battle to really get uniformity and

understanding within an organization, and what it will take to really get a workplace to accept the change not only as an outcome of an error, but also the change toward using reflection in error review.

To combat this, Cannon and Edmondon (2001) propose several antecedents that must be in place. These antecedents include the fact that managers must be seen and act as coaches or leaders; that a work group have a clear direction with a shared expected outcome (so that failures can be identified and understood); and that all in the group feel supported with access to resources and information, to help them feel respected. These antecedents will help establish a shared belief about failure and errors, so that the group can move beyond fear and intimidation and head towards learning that leads to real change (p. 168-169).

Learning from Errors as a Means to Identify Change and Develop Competency

Learning from errors in the workplace highlights the social interactions and emotions involved as well. Bauer and Mulder (2007) suggest that errors at work require two strong influencers in staff as determinates for successful learning will be. The influencers are *deliberate self-regulated learning ability*, and the staff use of *negative emotions* (p. 130). These two factors will heavily influence whether learning can actually be achieved in error review.

Deliberate self-regulated learning ability is presented by Baur and Mulder (2007) as a means to achieve and accept change as a result of an error (p. 130). This allows the workers to acquire new cognitive knowledge to change their behavior (or understanding) when presented with the situation in the future. This implies a willingness to change and can start to bridge the thought that learning is a form of change; therefore change is a form of learning (p. 130).

Negative emotions are an important influencer for learning at work, as Bauer and Mulder (2007) state:

Usually, negative emotions such as embarrassment, shame, guilt, fear or the feeling of incompetency are assumed to be inhibiting for open-error communication and learning from errors. However, several subjects in the study claimed that negative emotions can have a fostering as well as inhibiting effects for learning; negative emotions (e.g. guilt; fear of punishment) can lead to conditioning, so that the error episode is remembered in similar situations and one has the possibility to avoid the error. (p 130)

Together, these two factors play an important part of the socially-constructed learning "classroom" that is the workplace. Baur and Mulder (2007) summarized the following two concepts regarding learning from errors:
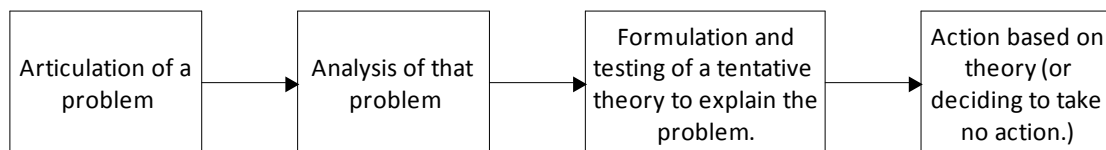
- First, many employees didn't connect learning from errors as *learning*, since the learning was experiential and lacked the progressive and formal feel of their training.

- And second, they identified that the workplace provided a learning atmosphere that required social exchange, and therefore, learning from errors allows for group learning (p. 131).

Bauer (2007) also affirmed that errors are prime fodder for learning because they provide a change from the opportunity to question the routine performance of tasks. Because an individual can learn from the error, this individual can then go on to share their experience and get different perspective from their coworkers on the situation, causes and the changes that are needed (p. 684). This sharing information was also referenced by Harteis, Bauer and Gruber in 2008 as the second phase required for learning via negative knowledge (p. 225). Bauer (2007) included an argument for group learning because obtaining multiple perspectives on an error will expand an individual's capacity for learning; this will then promote a reciprocal benefit for their coworkers so the group can provide input for changes needed. This, then, promotes group competency development and group acceptance of change (p. 684).

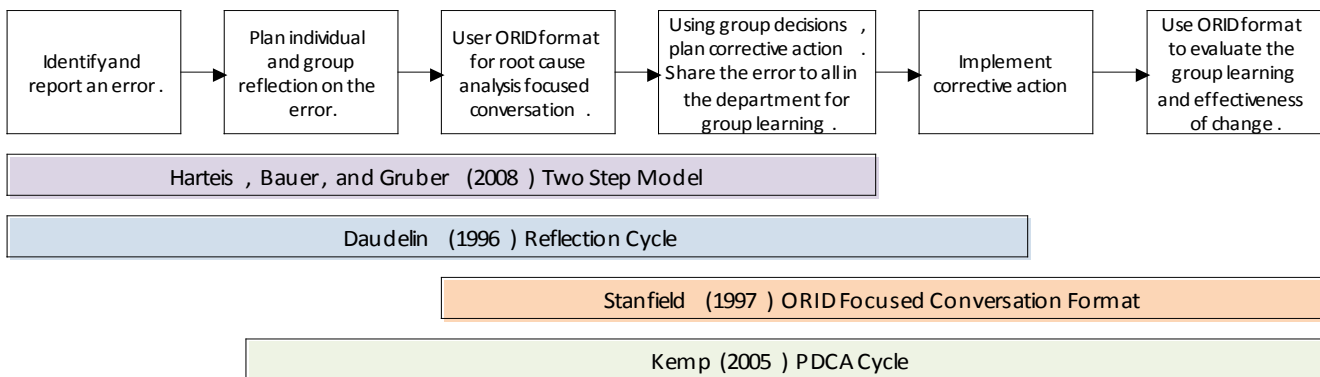Practical Concept of Reflection in a TMS

Daudelin (1996) was one of the earliest authors in my research to describe a reflection "cycle" by relating phases that the reflection process passes through. This was helpful in developing my image of reflection, but it's important to note that that this is just one representation of reflection, and it does

not intend to signify that reflection must follow this like a direct procedural path. In fact, this may be

the hardest part for a TMS to endure in a reflection process – there is no SOP for reflection! Gartmeier,

Kipfmueller, Heid, and Gruber (2008) actually argued against a schematic representation of reflection,

stating that in doing so, the complexity of reflection was diminished (becoming more of a destination,

instead of an experience) (p. 5). That being said, as a novice to the idea of group reflection, I actually

found value in Daudelin's (1996) presentation of reflection- for what it was (and respected what it

wasn't)- it can be represented as:

Articulation of a problem	→	Analysis of that problem	→	Formulation and testing of a tentative theory to explain the problem.	→	Action based on theory (or deciding to take no action.)

Daudelin (1996) p. 40

Using this as a starting point, there's an opportunity to expand this and include the aspects of

individual and group reflection. If this was used in the frame of reference of a TMS error review, it may

present something like this:

Identify and report an error .	→	Plan individual and group reflection on the error.	→	User ORID format for root cause analysis focused conversation .	→	Using group decisions , plan corrective action . Share the error to all in the department for group learning .	→	Implement corrective action	→	Use ORID format to evaluate the group learning and effectiveness of change .

Harteis , Bauer, and Gruber (2008) Two Step Model

Daudelin (1996) Reflection Cycle

Stanfield (1997) ORID Focused Conversation Format

Kemp (2005) PDCA Cycle

In combining the Daudelin's (1996) reflection cyle (p. 40), Harteis, Bauer, and Gruber (2008) two-

stage cycle of reflection followed sharing the lessons learned with all in the organization (p. 225), but

incorporating the ORID format of a focused conversation described by Stanfield in 1997 the PDCA cycle

is situated within a reflective frame. This allows the regulatory requirements of a facility to be met, but will open the possibilities for competency development, group learning, and effective change because reflection incorporates and opens the channels that can lead to real organizational change.

Conclusion

Examining the use of reflection is a significant and relevant topic for me and I feel I've gathered evidence of its potential in a workplace (and even garnered some personal benefits along the way!) I am in a unique position in QA to be able to inquire and examine our facility's acceptance of such a process, assured that we will continue to maintain compliance with the regulatory requirements as needed.

Errors present an opportunity for learning, and as I have learned – learning is a form of change, so change is a form of learning. Therefore, errors do have the potential to bring effective change – as long as the change is identified and accepted by the staff most affected by it. I believe there is sufficient evidence to support the concept that incorporating reflection is a realistic and achievable goal for my TMS. With an error system already in place, we are in a good position to evaluate and plan an improvement. I acknowledge the challenges that have been identified which may hinder this process, but feel they are obstacles which can be overcome organizationally and individually.

My future areas of interest reside in the implementation of such a system as a mechanism for change in the workplace. Moving forward with my Critical and Creative Thinking education, and within my professional development with my employer, I look forward to continuing the evaluation of this topic and move towards being part of such an exciting possibility.

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Appendixes

Figure 1: The Balance Between QA and Operations Within an Organization

Reproduced from Moore, S. B. (2003). Error management: Theory and application in transfusion medicine at a tertiary-care institution. *Archives of Pathology Laboratory Medicine, 127*, p. 1519
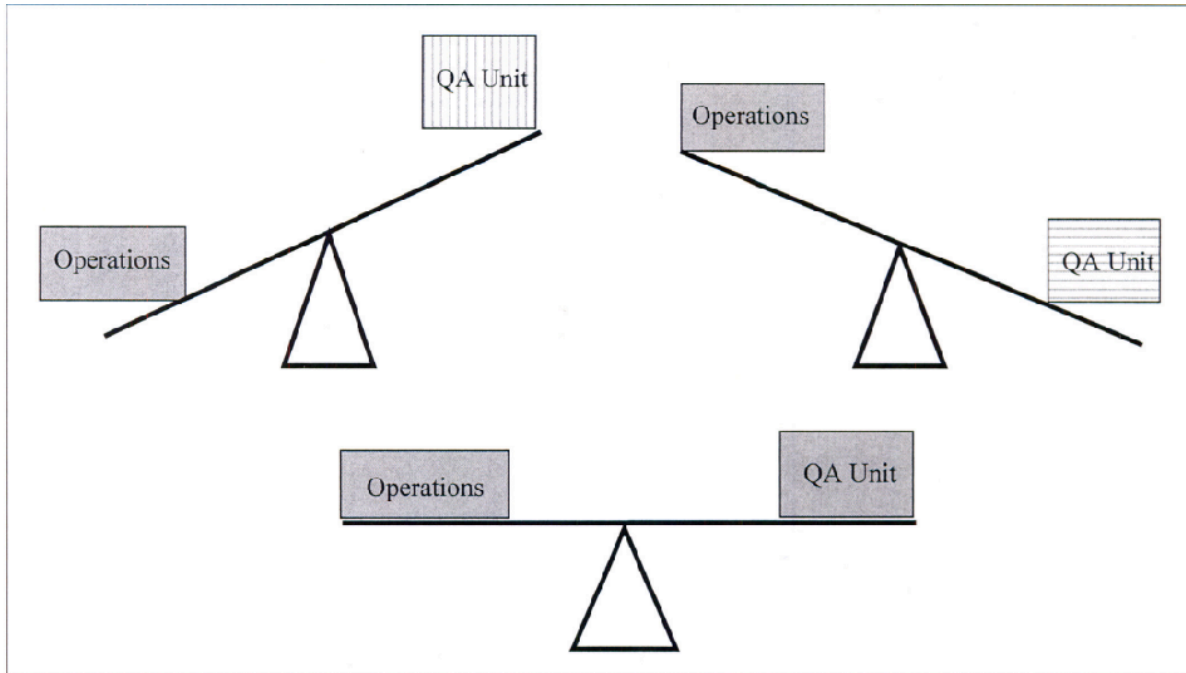
Figure 1. *When operations and the quality assurance (QA) unit are in balance, a healthy tension for error management is created (shaded boxes). When operations is responsible for all aspects of error management, the objectivity and regulatory review provided by the quality assurance unit is lost (vertically hatched box). When the quality assurance unit is responsible for all aspects of error management, the concept of quality management as the responsibility of each and every individual is lost (horizontally hatched box).*

Appendix 1: Classification of Human Errors

From: Bauer, J., & Mulder, R. H. (2007). Modeling learning from errors in daily work. *Learning in Health and Social Care, 6*(3), 121-133.

Classification	Description
Slips and lapses (SL)	Resulting from a "slip" or "lapse" of mental knowledge that was critical to achieve the intended outcome. Most likely from repetitive forgetfulness or attention span lapses that occur as a result of monotonous or overly cumbersome processes. These types of errors are usually considered "system" errors, as there is no way to remove the repetitive nature of their tasks and the system should be built strong enough to support and identify their outcomes in subsequent processes. Humans can't learn much from these types of errors (other than that they exist) because the cause of the errors is inherent in the system and not at the responsibility of the human.
Knowledge and rule-based errors (KRE)	Resulting from a wrong decision, or interpretation, or work being performed. Most likely the result of a "'wrong application of a good rule', 'non-application of a good rule', 'application of a bad rule', and 'deficiencies in knowledge'. (p 123)" These types of errors can be considered individual learning opportunities more so than system errors and can be used for individual and group learning. These are more easily understood as errors that are directly characteristic of individual error, not a system error. Individuals have the ability to learn from these errors, as they represent the interpretive and individual/human aspect of procedure or decision making.

Appendix 2: *Examples of Reflective Activities.*

Daudelin, M. W. (1996). Learning from experience through reflection. *Organizational Dynamics, 24*(3), p.

42.

Examples of solitary reflection:

- Spontaneous thinking during rhythmic, repetitive, mindless physical exercise (jogging, swimming laps, mowing the lawn) or routine habits (driving an established route, showering, shaving)

- Meditation

- Prayer

- Journal writing

- Business writing (prohect reports, professional papers, evaluations)

- Assessment instruments

Examples of reflection with helper or small group

- Performance appraisal discussions

- Counseling sessions

- Individual or group therapy

- Problem-solving meetings

- Project review sessions

- Informal discussions with friends/colleagues

- Interviews

- Mentoring

- Feedback discussions

Appendix 3: *Examples of a Focused Conversation Plan, using ORID Technique.*

From: Stanfield, B., & Canadian Institute of Cultural Affairs. (2000). *The art of focused conversation : 100 ways to access group wisdom in the workplace*. Gabriola Island, B.C.: New Society Publishers.

FOCUSED CONVERSATION FORMAT	
Rational objective *To learn what staff understands about the change process in our department.*	Experiential aim *Reconnect the staff and the managers process to promote change-ready employees*

Opening *Thank you all for coming today! We are here together to have a focused conversation about our change management process. I'm hoping that by using the recent examples of change we can identify what the group thinks are effective methods of change management, and perhaps what methods are not working. The changes we'll focus on are:* 1. *The new use of liquid controls with the Hemocue* 2. *The removal of the Apheresis Lot Number Log* 3. *The removal of the cold auto-storage cooler for transport of collected products to the Blood Bank* *For your preparation, I have forwarded you three things for your review; a summary of our current change process, an example of 3 recent changes (using the current process), and our "Rules" for this conversation. So, before we begin, I'd like to just ensure that everyone got a chance to review these items. I'd also like to remind everyone that I'm in the role of facilitator today; I'm not here to solve the issue. That, ultimately, will be the result today by our group. So, with that in mind I'll just remind everyone that the best outcome will be reached if we all share our thoughts, and I'll ask that we begin by all sharing our experience with the following question:* *What parts of the current change process caught your attention the most?* Allow all to answer…. *Great, thank you! I'll share my thoughts on that as well…..* *Moving forward, I'll now open the conversation for these subsequent questions to the entire group. Please speak loudly enough to the "center" of the table so that everyone can hear you.*

Objective Questions	Reflective Questions	Interpretive Questions	Decisional Questions
• How were you made aware of the 3 changes? • What are the responsibilities of the TMS staff regarding changes? • What are the responsibilities of the TMS Mgt regarding changes?	• Were there any changes that you were made aware of after they were implemented? • How did you feel when learning about each of the changes? • Describe how/what you feel when you hear the word "change?"	• What do you think is missing from our change control process? • Why do you think our department struggles with implementing change?	• What can we do to make change more effective? • What changes are needed in the communication and shared responsibilities in the implementation?
Time(min) 5-7	5-7	10-15	10-15

Closing

Thank you to everyone for participating in the group today. We've made some group decisions that require some action. Before we depart, let's go over what we've decided to do and assign who will be responsible and when it will be completed. The gathered information will be shared with this group again via email and then we will re-group one final time to determine how to move forward with our decisions. In addition, we can all be thinking about what we can do in the future to check in or test whether our group decisions were a benefit to the department.

Thanks again for your time, let's close by all stating one thing that we got out of today's meeting that we can use to keep our momentum going…

Appendix 4: Factors that Influence Workplace Learning

From: Billett, S. (2001). Learning through work: Workplace affordances and individual engagement.

Journal of Workplace Learning, 13(5), p. 210.

Type of Factor	Description	Example
Organizational	• Perceptions of individuals' competence • Race • Status of work • Employment status • Workplace demarcations • Personal relations, workplace cliques and affiliations	Based on the historical performance of an employee in a project, the manager doesn't consider or select an employee to participate in a future project – even though the former and current project may require different skill sets that the employee could have strengths or weaknesses.
Individual	• "Newcomers" or "old-timers" • Full or part-time workers • Teams with different roles and standing in the workplace • Individuals personal and vocational goals • Among institutionalized arrangements such as those representing workers, supervisor or managers	Part time employee doesn't have access to a new project that will allow learning because their schedule doesn't allow them to attend all of the meetings. An employee who is in school pursuing a degree is not included in a project because they are considered to not be "committed" to their work environment. Employees with less than a year of experience is not included in a project because they are not considered to have experience that will be valued in the project.