Assessing Competency in Practice-Based Learning

In Learning Portfolio Entries

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THESIS

Submitted as partial fulfillment of the requirements
for the degree of Master of Health Professions Education
in the Graduate College of the
University of Illinois at Chicago, 2012

Chicago, Illinois

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ACKNOWLEDGMENTS

I would like to thank my thesis committee- Ilene Harris, PhD., Rachel Yudkowsky, MD, MHPE, and Deborah Simpson, PhD for their unwavering support and assistance. They have provided me with guidance and advice throughout the entire process of developing, performing, writing, and presenting my thesis research. I truly appreciate everything they have contributed to the completion of this study.

I would also like to acknowledge and thank those who were instrumental to the completion of the study- Phillip Redlich, M.D., Karen Brasel, M.D., John Weigelt, Taylor Merkley, BS, Thomas Wade, M.D., and Laurie Hein.

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Abstract

Background: Graduate medical education is undergoing a dramatic shift toward competency-based assessment of learners. Competency assessment requires clear definitions of competency in any given area. In GME, competencies such as practice-based learning and improvement (PBL&I) are particularly difficult to assess due to the lack of validated methods of assessment. Learning portfolios, advocated and used as means for demonstrating PBL&I, may provide methods of assessing competency in PBL&I, based on portfolio entries. The purpose of this study is to identify the criteria used by expert senior surgical educators when judging competence in PBL&I.

Methods: We performed a qualitative study of faculty assessments of written learning portfolio entries. Six Surgical Learning and Instructional Portfolio (SLIP) entries written by general surgery residents at the Medical College of Wisconsin during the 2009 academic year served as the documents to be assessed by three expert senior surgical clinician educators. These faculty members were asked to identify criteria for assessment of PBL&I competence, using a combination of individual (independent) and group (consensus) assessments of SLIP entries. Individual and group discussions were conducted, recorded, and transcribed to serve as the study data set. Analysis of the discussions was performed using qualitative methodology to identify themes in the individual and group discussions for the purpose of defining competence in PBL&I. The assessment themes derived from the qualitative analysis are presented in this paper, with narrative examples to describe the progression of competency in PBL&I, using behavioral anchors to ground the descriptions.
**Results:** The collaborative coding process resulted in identification of seven themes associated with competency in PBL&I related to SLIP entries: 1) Self-awareness Regarding Impact of Actions; 2) Identification and Thorough Description of Learning Goals; 3) Cases Used as Catalyst for Reflection; 4) Reconceptualization with Appropriate Use and Critique of Cited Literature; 5) Communication Skills/Completeness of Entry Template; 6) Description of Future Behavioral Change; 7) Engagement in Process- Identifies as Personally Relevant.

**Conclusions:** The seven themes identified, from qualitative analysis of the criteria used by expert raters to assess the SLIP entries, is consistent with and complements other literature related to reflective practice and experiential learning theory. This study provides a foundation for further development of an assessment tool for assessing learner portfolios for evidence of PBL&I.
Background

The culture of medical training has changed dramatically over the past several years as the focus on education outcomes has intensified. The Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) have developed guidelines and suggestions for assessment of six defined resident competencies (1). One of the more difficult competencies to define, develop and assess is practice-based learning and improvement (PBL&I).

PBL&I has been described in the ACGME Outcome Project (1) as the ability of the resident to:

- "identify strengths, deficiencies, and limits in one's knowledge and expertise;
- set learning and improvement goals;
- identify and perform appropriate learning activities;
- systematically analyze practice using quality improvement methods;
- implement changes with the goal of practice improvement;
- incorporate formative evaluation feedback into daily practice;
- locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems;
- use information technology to optimize learning; and,
- participate in the education of patients, families, students, residents and other health professionals."
The steps to be taken by the resident engaging in PBL&I, according to ACGME guidelines, include:

- Monitoring one’s practice
- Reflecting on one’s practice to identify areas in need of improvement
- Engaging in learning activities
- Applying new knowledge into practice
- Monitoring the impact of new knowledge and practice on outcomes (2)

Although the ACGME has formulated some recommendations for tools to assess PBL&I, residency programs have been charged with the ultimate responsibility of developing assessment plans. Moreover, the plan must use dependable measures to assess residents’ competence (1). In its “toolbox”, the ACGME has recommended the use of portfolios for programs to assess residents' PBL&I and other competencies. Several authors have described using learning portfolios to provide evidence of ongoing professional growth and development through self-directed learning (3-7). Learning portfolios provide a vehicle for reflective practice; and reflection is an essential component of professional development (8,9). However, a recent BEME review of portfolios for learning and assessment concludes that more research is necessary to demonstrate the utility of portfolios as a learning and assessment tool in graduate medical education (10).

Since the introduction of the defined competencies, the ACGME has recognized the slow implementation progress that has been limiting the Outcomes Project. To address the need for more national direction within each specialty, the ACGME is shifting attention to the Milestones Project in an effort to encourage national development of outcomes assessment.
tools (11). The purpose of the Milestones Project is to identify specific markers of achievement for each of the original six competencies. Several national groups are now exploring the specific meaning of the competencies within their respective specialties and creating foundational work to better define and delineate achievement of the competencies (12,13). Furthermore, a clear goal of these groups is to identify appropriate assessments to benchmark the progression of the competencies.

In line with the underlying concept of the Milestones Project and its corresponding focus on assessment tools, an area in need of further study is whether competence in PBL&I can be demonstrated in learning portfolios. Learning portfolios likely contain evidence of achievement of multiple competencies, but PBL&I is the most consistently addressed competency within the portfolios. However, there are few published studies describing criteria that could be used to frame a scoring rubric or other means of assessment of PBL&I within resident portfolios. Further work is necessary to define and delineate the competency-based expectations for portfolio-based assessment of resident trainees. For portfolios to achieve their fullest potential as a learning and assessment tool, objectives linked with clearly defined outcomes/milestones must be developed in order to provide the learner with direction for achieving those objectives and thus being deemed competent (14).

Some authors have attempted to assess PBL&I competence as demonstrated by portfolios, through development of rating instruments (15-18). However, PBL&I is a competency that is difficult to assess using traditional assessment instruments, and the results of these portfolio-rating instruments demonstrate ongoing difficulties with demonstrating validity and reliability. For example, Pitts and colleagues attempted to
improve the reliability of their assessment through rater training but used a Likert-type scale scoring system that did not include behavioral anchors. Despite extensive training, they were only able to modestly improve inter-rater reliability (kappa increased from 0.26 to 0.5) (16). The rubric used by O'Sullivan failed to show a correlation of portfolio score and clinical performance based on clinical rotation evaluations or training year, thus failing to provide validity evidence for their rating instrument (17). The greatest limitation to the widespread dissemination of these rating instruments is the lack of foundational work, setting milestones to mark the progression of competency in assessing portfolio entries for evidence of PBL&l.

In 2001, we implemented a learning portfolio program within our general surgery residency program. The Surgical Learning and Instructional Portfolio (SLIP) was designed to provide a structure for each resident to develop their own individual portfolio of cases, demonstrating evidence of self-directed learning. The program has been previously described, including an initial evaluation providing key lessons learned (19). The basic components of the monthly SLIP include a monthly case topic chosen by the resident and reported using a template that includes: case history, supporting diagnostic studies, differential diagnosis, final diagnosis with ICD-9 coding, management options, treatment used, three lessons learned, further elaboration and discussion of one of the lessons, and two articles related to the lessons (19). This template allows for the learner to maintain a self-directed learning plan with the assistance of a template to help guide the educational experience.

Though the SLIP portfolio has been mandated and used within our surgical program since 2001, we have not yet attempted to assess residents’ competence in PBL&l as
demonstrated by SLIP entries. Given the structure of the SLIP, we believe that the resident should be able to demonstrate the following PBL&I skills as defined by the ACGME: identify strengths and deficiencies in knowledge and skill; set learning goals; and locate, appraise, and assimilate evidence from the literature related to patient problems. However, we have not systematically analyzed what a competent resident entry would necessarily contain. Therefore, without this foundation of expectations for outcomes, no assessment instrument can be properly developed.

The purpose of this study is to provide the field of surgical education with the foundation for development of an instrument to assess PBL&I skills, using expert faculty judgment of competency-based criteria, in the context of portfolio entries in the SLIP format. A qualitative approach, using expert informants, provides the needed foundation for assessment of competency in PBL&I in the context of portfolio entries using the SLIP format. Qualitative analysis methodologies have been recommended as an approach for assessment of portfolios entries because of the qualitative nature of portfolio entries, namely they are presented in narrative form. (19). This process of qualitative analysis provides a foundational understanding of expert surgical educators’ expectations when assessing residents’ ability to document PBL&I using the SLIP. Once expert perspectives are elicited about assessment of PBL&I, using the SLIP, the underlying themes can be defined and a rating instrument can be created.

The purpose of this study is to identify themes defining criteria for assessment of PBL & I in the SLIP. To achieve this purpose, the method used for this study was for expert raters to answer the question, “When reviewing a resident’s learning portfolio entry, what stands out to you as evidence of competence or incompetence in PBL&I?” In concrete terms, when
assessing performance of practice-based learning, based on portfolio entries, what makes one SLIP PBL&I entry better (or worse) than another?
Method of Inquiry

Expert senior surgery clinician educator faculty members were asked, both in individual (independent) and group (consensus) interviews, to identify criteria for assessment of competence in PBL&I in SLIP entries. The qualitative method of constant comparative analysis of the discussions was used to identify themes associated with competence in PBL&I, based on portfolio entries (20-22).

Six SLIP entries written by residents within the General Surgery residency at the Medical College of Wisconsin during the 2009 academic year served as documents to be analyzed by three senior surgical educator faculty members in the Department. The number of SLIP entries chosen to be analyzed was based on five years of experience with the amount of time taken to read and reflect upon SLIP entries. Furthermore, it was felt that the use of six entries and three faculty raters would likely lead to theme saturation due to the principle investigator’s (TW) previous extensive review of the SLIP entries (23,24). The six SLIP entries were chosen by the principal investigator and vetted by an independent study assistant (TM) for their perceived variability in content, length, and overall quality. The entries were chosen from a pool of 420 entries from the 2009 academic year that were de-identified except for the authoring resident’s training year. Two SLIP study documents were chosen from each of the PGY1, PGY3, and PGY5 year to provide potential variability based on resident experience over the continuum of the five-year residency program.

Following IRB study review/approval, three senior faculty members in the Department of Surgery, with extensive experience in resident education, local recognition as members of the Society of Teaching Scholars at the Medical College of Wisconsin, and
national recognition as “Teacher of the Year” by the Association for Surgical Education, served as the expert faculty raters. Each of the faculty has rich experience in assessment and served on national committees related to education and competency assessment. The three reviewers had variable experience with the SLIP program and with reading individual SLIP entries. One faculty member is currently serving as the SLIP facilitator by reading each entry and providing feedback to the residents. The other two faculty members had previously viewed SLIP entries, but neither read them on a routine basis. We believed this variability would contribute to the richness of the rating sample.

Each rater was asked to individually read the documents, rate the resident’s skills in PBL&I based on the documents, and provide a “think out loud” rationale for their rating of the resident’s skills. More specifically, each rater independently read the entire group of six documents and then went back through each one to provide their ratings and rationales.

They gave each portfolio a global rating on a 5-point scale ranging from poor to outstanding with no further behavioral anchors. Next, they provided rationales for their global ratings of each document that were recorded and transcribed. The principal investigator then conducted an interview with each rater, using the rater’s rating rationale as a basis for discussion, to further probe their thinking and rationales for their ratings. The interviews were conducted following a guideline for questioning (Figure 1), but were not tightly scripted, in order to allow for a more natural flow of conversation and thought.
Figure 1
Guide for Individual and Group Interviews

The following talking points are to be used as a guide to drive the discussion during the individual and group interviews.

Talking points
1. How would you define practice-based learning and improvement (PBL&I)?
   • Probe for: Based on experience, official definitions, has this evolved over time?
2. From your knowledge of the SLIP program, describe how SLIPs may or may not allow for demonstration of PBL&I.
   • Probe for: How has your opinion changed based on reading these entries?
3. Now based on your previous ratings and descriptions, I would like to clarify and ask you to expand upon a few of your thoughts.
   • Probe for: This will be a time to further clarify any of the participants’ previous comments and ratings. In the group setting, specific quotes will be used as starting points, but the author of the quote will not be identified to the other participants.
4. What was the most surprising aspect of this exercise in assessing the SLIP entries?
   • Probe for: Did they find this difficult to assess for PBL&I? Do they think it is reasonable to try to assess PBL&I using the SLIP entries?
These interviews, like the rating rationales, were recorded and transcribed for qualitative analysis.

Following the discussion of their individual ratings, the raters were convened to discuss their rationales and provide insight into these analyses within a group setting. They were asked to discuss the reasons for their ratings of SLIP entries, and also the critical aspects of the entries that demonstrated evidence of competence in PBL&I. The group discussion was used to garner further data, as raters were likely to support and challenge each other’s perspectives (25, 26). The group discussion was recorded, transcribed, and then analyzed to identify themes, through a process of qualitative analysis by the principal investigator and two other independent reviewers (TM, TW) with experience and training in qualitative methods. Interpretations and conclusions were drawn from the group and individual qualitative analyses. Further verification of the trustworthiness of the qualitative analysis was based on inter-coder consensus on themes, expert faculty rater member checking of the identified themes, and triangulation of the findings with the PBL&I literature. The data derived from the qualitative analysis is presented with themes and examples, to depict the progression of competency in demonstrating PBL&I using behavioral anchors to ground the descriptions.
Results

The collaborative coding process resulted in theme saturation after the identification of seven themes, with comments categorized in each, mentioned by each of the raters, listed in decreasing order of frequency: 1) Self-awareness Regarding Impact of Knowledge and Decision Making on Outcomes; 2) Identification and Thorough Description of Learning Goals; 3) Case Used as Catalyst for Reflection; 4) Reconceptualization with Appropriate Use and Critique of Cited Literature; 5) Communication Skills/Completeness of Entry Template; 6) Description of Future Behavioral Change and; 7) Engagement in Process- Identifies as Personally Relevant. Table I demonstrates the themes and subthemes developed and agreed upon by the qualitative analysis reviewers.

In order to better explain and understand the identified themes and subthemes as they relate to the process of self-reflection, we created a model that depicts the importance of each theme in chronologic order during self-reflection using the SLIP portfolio. Figure 2 illustrates how each of the themes fit into a model describing the activity of resident self-reflection when completing the SLIP entry. Following is a description of each of the themes using this process model construct.
TABLE I

THEME CODING- THEMES AND SUBTHEMES LISTED IN ORDER OF DECREASING FREQUENCY

Self-awareness Regarding Impact of Knowledge and Decision Making on Outcomes
DCT Demonstrates critical thinking by asking questions and questioning previous assumptions and beliefs, considering alternative options
SR Demonstrates self-reflection-critiques one’s own actions and decision-making
SI Shows insight by acknowledging deficits in knowledge or acknowledging veracity or falsehoods of previously held beliefs
LC Demonstrates willingness to learn from case by comparing previous experience or assumptions to newly gained knowledge
RFxM Reflects on management of case by comparing what was done and what could or should have been done
RP Reflects on problem/learning point in context of experience and literature by describing what others have written or said about the topic

Identification and Thorough Description of Learning Goals
IP Identifies learning topic/Key points in a clear, straightforward manner
LOCA Describes learning objectives that are of the appropriate complexity and context given the format of the SLIP entry and case described
DD Describes lessons within discussion at appropriate depth-discussion includes evidence of knowledge and recites evidence or experience commensurate with complexity of decision making
CM Describes management options based on new knowledge gained through research and reflection of learning topic
DLO Formulates learning objectives-Learning objectives are present
NK Describes new knowledge-Explains what knowledge was gained through research of learning topic

Case used as Catalyst for Reflection
LC Describes learning, changes in attitude or approach by clearly stating what was garnered from the case and subsequent re-examination
CL Describes competencies addressed by reflecting on case
REx Refers to and places discussion in context of current experience
LLO Links learning objectives to case
DL Links discussion of learning points to case by referring to case experience in relation to newly gained knowledge
Reconceptualization with Appropriate Use and Critique of Cited Literature
RCA References critiqued and analyzed in relation to case presentation
RCt References cited/referred to appropriately within learning topic discussion
RQ Reference quality and depth as demonstrated by up-to-date publication, study design, quality of journal, or complexity of review
RC Reference content relevant to case and learning points identified
RN At least two references identified-more references given the complexity or controversial nature of the learning topic

Communication Skills/Completeness of Entry Template
SG Correct spelling and grammar
NF Easy to read-narrative flow is easy to follow
CH Complete/concise case description-pertinent findings included, non-pertinent facts excluded
FT Follows and completes SLIP template

Description of future Behavioral Change
IFP Describes impact of learning experience on future practice
RL Incorporates data from references into future practice and management decisions

Engagement in Process-Identifies as personally relevant
EE Evidence of effort-short cuts taken-simple explanation without elaboration, sloppy grammar, inappropriate use of abbreviations, or simple spelling errors.
CP Appears to have been cut and pasted or copied word for word from textbook or journal (too detailed or expansive discussion)
Figure 2: Model of resident reflective process using the SLIP
Case used as Catalyst for Reflection

The first step in self-reflection requires an event or interaction upon which to reflect. The SLIP assignment asks the learner to use a clinical case as the nidus for reflection. The raters’ comments reveal a desire to see a clear linkage between the case described and the subsequent topic described by the learner. They felt that the foundation of the SLIP entry should be the case as experienced by the learner. The learner should then indicate, through their SLIP entry, what was learned from the case, and upon reflection, what still needs to be learned. The learning objectives formulated should clearly relate back to the case described. Therefore, the experience of the learner, as demonstrated by the case description, becomes the starting point and catalyst for further investigation, contemplation, and learning.

Exemplar Quotations:

“The case becomes the infrastructure for a thoughtful discussion and insightful comments.”

“Take a case and figure out essentially what you learned from the case...when you would choose what you chose or why you might choose something different.”

The SLIP “acts as an external motivator for the resident to reflect on a case and explore related competencies and ask a question if they did the right thing.”

“I thought this resident completely missed the boat. There was no connection between the case and the discussion.”

“The experience sets the stage for learning.”

“Using clinical experience as a guide to obtaining refreshed or knew knowledge”
“Truly be reflective of a clinical problem that they have seen and ask some serious questions.”

“One critically evaluates an event or intervention and then asks questions that would allow one to grow intellectually.”

Residents “learn new approaches based on actual experiences and subsequent reflection.”

**Engagement in Process- Identifies as Personally Relevant**

As the process of self-reflection begins and the creation of a SLIP entry ensues, reviewers felt that buy-in and engagement in the task is necessary for a high quality product. This evidence of engagement was difficult for the raters to define, but deemed important never the less. The raters described lower quality entries as those that “smack of cut and paste”. The presence of “recanted data from a textbook” seemed to define those entries in which the authors had not truly engaged in the learning process but simply recited or copied a textbook or article. Overlapping with the communication skills theme, evidence of lack of engagement was also thought to be identifiable when short cuts were taken, including the presence of a difficult to follow narrative or poor use of spelling and grammar.

Exemplar Quotations:

“In some entries, it becomes apparent that the exercise has the resident actively engaged and thinking, and they have stressed the notion that they have personally learned something from the experience.”
“There are extremes where the residents put little or no effort into it. They just filled out a piece of paper without elaboration on the topic or evidence that they learned anything from it. On the other hand, you’ve got some of the ones I think are truly engaged in the process asking questions and trying to come up with some answers by themselves.”

“Some treat it as busy work with a clear lack of insightful comments and a superficial nature to the entry.”

“Writing is a very powerful tool. Clarity of writing and speaking conveys the effort that one puts into their project.”

“Writing is a reflection of the effort that one puts in. A lot of short cuts in their writing likely (but not always) reflects a lack of engagement in the activity.”

Identification and Thorough Description of Learning Goals

The next step in the creation of SLIP is the synthesis of ideas regarding the learning goals. The raters felt that the learner should clearly identify and reflect upon the learning goals. Learning goals should be “clear, thoroughly described, and appropriate for the case”. The depth of discussion related to the learning goal was described as the most important criterion for this theme. Raters felt that the learning goals should be discussed in a sophisticated and complete manner with clear conclusions drawn in the discussion of the topic.

Exemplar Quotations:

“This exercise demonstrates to me that the individual picked clear learning goals and met them.”
“Learning objectives were clearly identified, appropriate, and met through a concise discussion.”
“The discussion was excellent because it identifies the important lessons learned...and identified key take-home messages that leads me to believe that something was actually learned by this review.”
“They documented clearly what they wanted to learn.”

In regards to an average SLIP entry, one rater commented, “Their goals might not be explicit. They may not state what their goals are but they check the boxes...”
By contrast, a good SLIP entry “has a clear plan of what they want to get out of the complication,” and may be “used as an opportunity to explore a technique or treatment not used.”
Regarding a poor SLIP entry, a rater commented,
“After reading this SLIP, I’m not clear what was actually learned, if anything.”

Self-awareness Regarding Impact of Knowledge and Decision Making on Outcomes

The most frequent type of comment focused on resident self-awareness of the impact of their clinical case management and how their knowledge may have positively altered plans and patient outcomes. The comments categorized in this theme focus on the concept that the resident has identified a clinical problem and associated knowledge deficit. Moreover, they have attempted to analyze the problem and knowledge deficit through reflection, and identification of new information and data in the literature, using the SLIP writing process. Clear evidence of reflection, insight into the case, and most importantly, the knowledge gained from the experience, was felt to demonstrate a high
quality entry. The raters frequently described “critical thinking” or “shows insight,” related
to the case, as important indicators of mastery of the PBL&I process. Reflection was
described as “critiquing actions and decision making”.

Exemplar Quotations include:

“They closed the loop by demonstrating critical thinking and reflecting on their
management of this case by identifying the issues at hand ... and coming up with a
new perspective.”

“I think the idea of questioning what was done, how it was done, and whether or not
it was the right thing to do based on this examination shows a level of maturity.”

“One critically evaluates an event or intervention and then asks questions that
would allow one to grow intellectually and always be somewhat critical of one’s
thinking and also be critical of others’ thinking so you can come up with new
questions to ask or new perspectives to a problem.”

“They should truly be reflective of a clinical problem that they have seen and ask
some serious questions...about what they did, how they did it, and try to use data to
support or refute how it was accomplished.”

“Here’s a case where the resident is asking, “I wonder why we didn’t consider this
management.”

“The resident is reflecting on what they learned about new approaches through a
willingness to question previous assumptions.”

*Reconceptualization with Appropriate Use and Critique of Cited References*
Many comments by raters reflected the importance of re-examining the clinical experience by reviewing, analyzing, and critiquing pertinent literature. The identification of relevant and high quality studies related to the learning goals was viewed as an important indicator of PBL&I. The raters believed that the learner should ideally demonstrate their ability to recognize whether data in the literature is applicable to their own cases and situations. Reconceptualizing the learner’s experience, by using the literature as a guide to develop a new understanding, was a frequent comment by the raters. Furthermore, the raters commented that a “thorough critique” of the scientific study methods, results, and conclusions was also necessary to demonstrate evidence of PBL&I. The number, quality, and content relevance of the literature cited were all described as important indicators of PBL&I.

Exemplar Quotations:

“The author offers their own opinion of the articles and how they may impact patient care.”

Necessary components include: “citing references, discussing references, critiquing them, what they agree with the reference and how they disagree.”

“The sophisticated analysis was ...of the studies. You have to be careful in terms of does the patient population [in the study] reflect the patient you are treating.”

The SLIP “demonstrated the whole looking at the problem, looking at the data, and really a very careful sophisticated analysis of the data [in the study] to then bring it back to the problem.”

“Sophisticated analysis of the studies reviewed with clear connection to the case and what the resident wanted to learn.”
“One of the citations is more than 20 years old. Wouldn’t you think that there would be something written about the topic in the last 10 years or so?”

“The discussion is full of information obtained only from a textbook. There is no citation of the literature and no critical analysis of the data put forth.”

“One of the citations is not relevant nor commented on in the discussion.”

_Description of Future Behavioral Change_

Another frequent SLIP characteristic felt to be important by the raters was that the learner described the specific impact of learning from the case upon future practice and decisions. The raters felt that for a SLIP to demonstrate PBL&I, the learner should put the learning experience within the context of their practice and ultimately draw conclusions about how the learning experience would “impact their future activity” and decisions when confronted with similar situations.

_Exemplar Quotations:_

“Overall, this exercise demonstrates to me that the individual learned specific lessons from this write-up that would, indeed, impact care of future patients in a positive manner.”

“Clear reflection on how the resident wants to practice in the future.”

“You could ascertain from the entry how the SLIP exercise would impact the future activity.”

The entry shows “that the next time the same or similar problem is encountered you would choose a different treatment based not only on experience, but also on knowledge and evidence gained from this exercise.”
“They have demonstrated that they have enhanced their knowledge enough that they can now change and potentially improve their practice.”

*Communication Skills/Completeness of Entry Template*

Appropriate communication skills, including proper grammar, spelling and narrative, were identified as an important criterion for assessment of the SLIP entry. The raters felt that a concise, well-written SLIP demonstrates not only a high level of mastery of “proper English”, but also a higher level of understanding and comfort with the subject matter. Simple grammar and spelling errors were cited most frequently as a subtheme, followed closely by narrative flow and ease of reading. The ability of the resident to write a pertinent case description in a manner that tells a story or “paints a picture” was also identified as an important communication skill. Finally, within this theme, the raters all identified the ability to follow and complete the template as a significant factor in the identification of an excellent SLIP.

*Exemplar Quotations:*

“This Case History is nicely written while conveying to the reader the intent of the case. In other words, the writer is telling a story to the reader, not just writing for the sake of the exercise.”

“Familiarity and knowledge of a subject comes through when an entry is well written and paints a picture for the reader.”

“Some just ramble on with non-pertinent facts and descriptions making hardly any sense in the end.”
“We have some residents who ... have no ability to use the written English language.

I mean there are misspelled words in these things, and you can spell check. I think the English language and spelling are just not emphasized anymore.”

“I understand what is being said, but it is unfortunate that our trainees have forgotten the English language in order to communicate properly.”

“Certainly, following the template and completing each section is a basic necessity for a good entry.”

Member checking was performed to improve the trustworthiness of the qualitative analysis. The raters reviewed the themes and all felt the themes accurately reflected their interviews and attitudes regarding their own analyses of the SLIP entries.
Discussion

In this study, we identified, based on raters’ reviews of SLIP entries, seven distinct themes for criteria that our expert raters felt to be important indicators of quality of a SLIP entry and the associated ability of a learner to demonstrate PBL&I within the context of a learning portfolio. The results of this study can be analyzed within the context of the education literature to provide evidence of the trustworthiness of the findings. Triangulation with previous studies and learning theory confirm the trustworthiness of our study results.

For example, the themes identified in our study can be examined within the conceptual framework of the theory of reflective practice as a basis for experiential learning. Experiential learning theories, such as those formulated by Dewey, Lewin, and Piaget, have described learning as being most effective when it is closely associated with specific experiences (27). Many authors have described how learning is improved when the educational activity is collaborative and takes place within a relevant context to the learner (27-30).

Kolb presented experiential learning theory as cyclical and following four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation (31). This cycle of learning fits well with our findings in that the learner must describe a relevant case (concrete experience), use the case as a catalyst (reflective observation) for reconceptualization using available literature (abstract conceptualization), and then describe the impact upon future behavior and actions (active experimentation). Furthermore, Dewey described the first step of the learning process as identifying a problematic or troublesome experience, corresponding to our theme of
identification of a problem (28). Clearly, our experts felt that identification of a problem, and deliberately stating the purpose of the entry, was a key component of competency as they often commented on the importance of the self-awareness regarding the impact of actions and identification and thorough description of the learning topic.

One of the struggles educators face when trying to analyze learners' ability to perform PBL&I is identification of observable actions and behaviors as a basis for assessment. Reflective learning has been described by Eva and Regehr as indicating a “conscious and deliberate reinvestment of mental energy aimed at exploring and elaborating one's understanding of the problem one has faced (or is facing) rather than aimed simply at trying to solve it.” (32) Understanding is not an observable action, making it impossible to accurately assess one’s ability to perform reflective learning within Eva’s definition. However, our raters identified observable behaviors, consistent with reflective practice, such as asking questions about what was done and then re-examining the situation, using data to support or refute what was done.

There are a number of limitations to the general applicability of the study. First, the study elicited and analyzed the views of a small number of well-respected surgical educators in regards to a specific type of learning portfolio. The learning portfolio entries were derived from a single academic institution and from a single group of surgical residents. There is potential for a lack of diversity in the SLIP entries based on the homogeneity of their authors. Finally, there may be unintended biases introduced by the principle investigator when he chose the SLIP entries to be reviewed by the raters.

Despite these limitations, this study provides a foundation of expert opinion upon which an assessment tool can be developed. By carefully identifying the characteristics of
varying levels of competence in PBL&I demonstrated in the SLIP entries, one will now be able to create an appropriately grounded assessment tool. Future work will now include creating an assessment tool and evaluating the validity and reliability of that assessment tool.
References:


VITA

Travis P. Webb, M.D., FACS
Associate Professor of General Surgery
Associate Program Director
Division of Trauma and Critical Care

1. **Education:**

   08/1987 – 05/1991 High School Diploma, Effingham High School
   Effingham, IL
   08/1991 – 05/1995 B.S, University of Illinois
   Urbana-Champaign, IL
   08/1995 – 05/1999 M.D., Southern Illinois University School of Medicine
   Springfield, IL
   08/2007 – Present MHPE-Candidate, University of Illinois at Chicago
   Chicago, IL

2. **Postgraduate Training and Fellowship Appointments:**

   **Clinical Training**
   06/1999 – 07/2002 Resident, General Surgery Medical College of Wisconsin
   Milwaukee, WI
   07/2002 – 06/2003 Surgical Critical Care, Fellowship
   Medical College of Wisconsin
   Milwaukee, WI
   07/2003 – 01/2004 Resident, General Surgery
   Medical College of Wisconsin
   Milwaukee, WI
   01/2004 – 07/2004 Specialist Registrar in Surgery
   Royal Devon and Exeter Hospital
   Exeter, England
   07/2004 – 07/2005 Chief Administrative Resident, General Surgery
   Medical College of Wisconsin
   Milwaukee, WI

   **Instructor Certification**
   04/2001 ATLS Instructor Training
   Medical College of Wisconsin
   Milwaukee, WI

   **Education Training**
   Chicago, IL
   - 10 hours training in educational techniques for
     End-of-Life care and teaching
08/2006-Present  MS-3 Clerkship Director Faculty Development Program
Medical College of Wisconsin
  o  20 hours/year focused on competencies in curriculum, academic productivity, educational evaluation, and assessment
10/2006  Surgeons As Educators Course
  o  60 hours of training focused on principles of adult education and its application to surgery
  o  Competitive selection process (1 of 30 nationally)

3. **Faculty Appointments (Include Secondary Appointments):**

   08/2005 – 6/2009  Assistant Professor, Department of Surgery
Division of Trauma and Critical Care
Medical College of Wisconsin
Milwaukee, WI

   07/2009- Present  Associate Professor, Department of Surgery
Division of Trauma and Critical Care
Medical College of Wisconsin
Milwaukee, WI

4. **Administrative Appointments:**

   07/2011 – Present  Director, Acute Care Surgery
Department of Surgery
Medical College of Wisconsin
Milwaukee, WI

5. **Educational Administrative Positions:**

   Medical Student

   08/2005 – Present  Co-Director, MS-3 Resuscitation and Perioperative Medicine Clerkship
  o  Design and evaluate curriculum for required 1 week of required 4 week MS-3 clerkship
  o  Focus on trauma resuscitation and management via lectures, simulations, skill stations
  o  Recruit and manage faculty for education sessions
    17 hours/month of instruction, testing and lectures

   06/2006 – Present  Director
MS-4 Trauma Sub-Internship and Elective
  o  Implement and evaluate an MS-4 rotation with up to 29 students per year rotating on the trauma service
03/2007 - Present  Co-Director, MS-4 Injury Control Selective
  o  Design and Implement an MS-4 Selective rotation
      with up to 8 students twice per year.

Resident
03/2006 – Present  Associate Program Director
  General Surgery Residency
  o  Design, implement, and evaluate a comprehensive
      general surgery curriculum for PGY2 residents
  o  Administrative duties running a 35 resident
      General Surgery residency program

6.  **Hospital Staff Privileges:**

08/2005 – Present  Froedtert Memorial Lutheran Hospital
                   9200 W. Wisconsin Ave, Milwaukee, WI 53226
08/2005 – Present  Froedtert Surgery Center, LLC
                   840 N. 87th Street, Milwaukee, WI 53226
11/2010 – Present  Community Memorial Hospital
                   eICU Telemedicine
                   W180 N8085 Town Hall Rd., Menomonee Falls, WI 5305

7.  **Specialty Boards and Certification:**

<table>
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<td>ABS Surgical Critical Care</td>
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<td>7/1/17</td>
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<th>Expiration</th>
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<tr>
<td>ATLS Instructor</td>
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<td>4/6/01</td>
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<table>
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<tr>
<th>Licensure</th>
<th>Number</th>
<th>Issue Date</th>
<th>Expiration</th>
</tr>
</thead>
</table>

8.  **Awards and Honors:**

**Academic Awards**
1996  Illinois General Assembly Scholarship

**Research**
2007  Best GME Presentation Award: “Innovations in residency
      education through a protected block curriculum.”
      March 24, 2007, CGEA, Indianapolis, IN.
2010  Published Paper of the Year Award, MCW DFCM:
“Characteristics of Patient Encounters that Challenge Medical Students’ Provision of Patient-Centered Care”. Academic Medicine 2009, 76(10 Suppl): S74-78

Clinical
2005
Golden Scalpel Award for Outstanding Technical Ability Award chosen by the faculty and given to the Chief resident who exhibits exemplary technical abilities in the operating room.

Educational
2008
Edward J. Lennon Endowed Clinical Teaching Award Award given to junior faculty who has “made a difference” to the teaching programs at MCW. Selected annually by the MCW Society of Teaching Scholars.

2007-2008
MCW Outstanding Medical Student Teacher 2008-2009 Resuscitation and Perioperative Medicine Clerkship. Awarded by the Curriculum and Evaluation committee for medical student teaching.

2008-2009
MCW Outstanding Medical Student Teacher 2008-2009 Surgical Clerkship. Awarded by the Curriculum and Evaluation committee by recommendation of the Clerkship director.

10/2010
POET (Pursuing Organizational Excellence Together) Pin Recipient. Recognition award given by hospital service champions for excellence in patient care and organizational commitment. Awarded for contributions to nursing education and curriculum development.

06/2011
Teacher of the Year 2010-2011. Award given to one faculty each year by the Chief Residents in General Surgery.
07/2011 – Present  MCW Society of Teaching Scholars
Elected to membership in this honor society as
Recognition of teaching excellence and outstanding
contributions as an educational scholar and leader.

2010-2011  MCW Outstanding Medical Student Teacher 2010-2011
Resuscitation and Perioperative Medicine Clerkship.
Awarded by the Curriculum and Evaluation committee
for medical student teaching

9. **Memberships in Professional and Honorary Societies:**

**Medical**
- 1995 – 2010  American Medical Association
- 1995- 1999  Illinois State Medical Society
- 1995-1999  Sangamon County Medical Society
- 1996- 1999  American Medical Student Association
- 2000 – 2011  Wisconsin Medical Society
- 2002 – Present  American College of Surgeons
- 2003 – Present  Society of Critical Care Medicine
- 2006 – Present  Association for Academic Surgery
- 2006 – Present  The Wisconsin Surgical Society
- 2007 – Present  Fellow American College of Surgeons
- 2008 – Present  Milwaukee Surgical Society
- 2008 – Present  American Association for the Surgery of Trauma
- 2009 – Present  Western Surgical Association

**Education**
- 2004 – Present  Association for Surgical Education
- 2006 – Present  AAMC- Central Group on Educational Affairs
- 2008 – Present  APDS- Association of Program Directors in Surgery

10. **Editorial Boards/Invited Reviewer:**

- 01/2007- Present  Member, Editorial Board *Journal of Surgical Education*
  o Invited member of the editorial board.
- 02/2007  Invited Reviewer, Medical School-Palliative Care
  Education Project – Robert Wood Johnson Foundation
  (David Weissman, MD – PI)
  o Peer-review of proposals for $41,000 grant to be
  awarded to six medical schools.
01/2009- Present  Invited Reviewer, *Journal of the American College of Surgeons.*
01/2009- Present  Invited Reviewer, *MedEdPortal*
03/2010  Peer Reviewer, WISEMD
  o  Peer Reviewer diverticulitis module
07/2011  Associate Editor *Journal of Surgical Education*

11.  **Local/Regional Elected/Appointed Leadership and Committee Positions:**

09/2005 – 7/2007  Co-Director, Patient Centered Care Intersession
  o  Design, implement and evaluate a required ½ day session for all third year medical students focused on diversity
08/2007 - 2009  Co-Director, Professionalism Intersession
  o  Design, implement, and evaluate a required ½ day session for all third year medical students focused on professionalism understanding and development.
07/2006 - Present  Chair, Education Research Committee
  Department of Surgery
  Medical College of Wisconsin
  o  Formed 23 member group for collaboration in surgical educational research
  o  Develop agenda and chair monthly meeting
  o  Collaborative effort has led to multiple local, regional, and national presentations and publications
03/2009 – 06/2011  Faculty
  Chief Resident Immersion Training in the Care of Older Adults (CRIT)
  o  Organize and provide instruction during a 3 day workshop to 16 chief residents from 10 departments per year with the goal to foster collaboration among disciplines in the management of complex older patients
08/2009 - Present  Member
  MCWAH Education Committee
  o  Oversee and facilitate MCWAH-wide education of residents, fellows, program directors and program coordinators.
02/2010 - Present  Chair
  Chief Resident Leadership Symposium Committee
  o  Plan and implement a half-day symposium for all MCW chief residents with a focus on leadership,
organizational analysis, and negotiation skills

06/2010 – Present  Co-Chair
MCWAH Education Committee
  o Oversee committee meetings each quarter in
    collaboration with Co-Chair program director

01/2012 – Present  Co-Chair
Department of Surgery-Offsite Planning Committee
  o Oversee committee meetings in collaboration with
    Co-Chair focusing on departmental expansion in
    the community

Froedtert Hospital
2006 – Present  Pharmacy, Nutrition, and Therapeutics Committee
09/2010 – Present  Chair, Trauma Program Education Committee
  o Develop agenda and chair quarterly meeting
  o Oversee trauma program educational activities

Medical College Physicians
04/2011 – Present  Co-Chair, Strategic Planning Committee-
                   Subcommittee
  o Develop strategic planning goals and objectives for
    the MCP initiative focusing on “Effectively
    Managing Education in the Clinical Practice”

12. National Elected/Appointed Leadership and Committee Positions:

03/2008 – Present  Association for Surgical Education
                   Curriculum Committee
03/2010  NBME- USMLE Step 2 CK Panel Reviewer
  o Invited participant of a standard setting panel for
    the USMLE Step 2 CK exam
03/2011 – Present  Association of Program Directors in Surgery
                   Ad-hoc Member, Entering Surgery Resident Prep
                   Curriculum Committee
06/2011 – Present  Co-Chair
                   ACS/APDS/ASE Prep Curriculum- Subcommittee on
                   Practice Based Learning and System Based Practice
  o Develop goals and objectives for national M4
    surgery prep curriculum
  o Lead subcommittee in efforts to develop
    curriculum content and assessment strategies
06/2011 – Present  National Board of Medical Examiners (NBME) Surgery
                   Test Committee
13. **Research Grants, Contracts, Awards, Projects:**

**Industry**

<table>
<thead>
<tr>
<th>Title</th>
<th>Industry Grant Title</th>
<th>Source</th>
<th>Role</th>
<th>Dates</th>
<th>Award</th>
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<tbody>
<tr>
<td></td>
<td>Linezolid in the Treatment of Subjects with Complicated Skin and Soft Tissue Infections Proven to be due to Methicillin-Resistant Staphylococcus Aureus</td>
<td>Pfizer</td>
<td>Principal Investigator</td>
<td>September 2005-July 2007</td>
<td>$56,250.00</td>
</tr>
<tr>
<td></td>
<td>A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study of Intravenous Methylnaltrexone (MOA-728) for the Treatment of Post-Operative Ileus (POI) after Ventral Hernia Repair</td>
<td>Wyeth</td>
<td>Co-Investigator</td>
<td>March 2008-April 2009</td>
<td>$208,168</td>
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**Peer Review - Education**

<table>
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<tr>
<th>Title</th>
<th>Program Title</th>
<th>Source</th>
<th>Role</th>
<th>Dates</th>
<th>Award</th>
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<tbody>
<tr>
<td></td>
<td>Improving medical students’ quality and efficiency in surgical education through use of case-based, computerized learning modules</td>
<td>Learning Resources, MCW</td>
<td>Principal Investigator</td>
<td>October 1, 2006-September 1, 2008</td>
<td>$10,500</td>
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<tr>
<td></td>
<td>Sustaining the Vitality of the M3 Clerkship Directors as Educators and Scholars</td>
<td>Learning Resources, MCW</td>
<td>Co-Investigator</td>
<td>May 1, 2006 - November 1, 2009</td>
<td>$13,550</td>
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<tr>
<td></td>
<td>Injury Research Center</td>
<td>Centers for Disease Control</td>
<td></td>
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</table>
Role: Member – Education Core; Liaison M3 Clerkship Directors
Dates: August 1, 2000- July 30, 2007 (Joined September 1, 2005 – present)
Total: MCW Subcontract = $270,819
Total Award: $1,999,968.00

Title: Geriatrics Education for Specialty Residents Program
Source: The American Geriatrics Society/ John A. Hartford Foundation
Role: Principal Investigator
Dates: July 1, 2007 – July 31, 2009
Total Award: $40,000.00

Title: Evaluating the Reliability and Validity of the Family Conference OSCE Across Multiple Training Sites
Source: Association for Surgical Education: CESERT Grant
Role: Co-Investigator
Dates: July 1, 2007 – May 31, 2008
Total: MCW Subcontract = $5,000.00
Total Award: $50,000.00

Title: I-Touching the future-M3 Clerkship Directors
Source: Learning Resources, MCW
Role: Co-Investigator
Dates: October 1, 2008 – October 1, 2009
Award: $13,782.00

Title: A Program to Support Clerkship Coordinators Efficiency in the use of Mobile Device Technology and Production of a Cross-Clerkship Mobile Learning Application
Source: Learning Resources, MCW
Role: Co-Investigator
Dates: December 1, 2009 – December 31, 2012
Award: $4,424.00

Title: i-Pod Touch Physical Examination Application
Source: Learning Resources, MCW
Role: Co-Investigator
Dates: 2010-2012
Award: $13,758

14. Invited Lectures/Workshops/Presentations:
National
3. “Challenges in Contemporary Surgical Education: Is it up hill both ways?” Department of Surgery Grand Rounds. Carle Foundation Hospital, University of Illinois, Urbana-Champaign. April 2011.

Regional

Local
2. Obesity and Trauma: Oil and Water don’t Mix. Presented at the 5th Annual Trauma/Critical Care Conference. Milwaukee, Wisconsin, October 26, 2007
3. Education in the OR: Learning under Fire. Presented at the Operating Room Nurses Educational Conference. Froedtert Hospital, Milwaukee, Wisconsin, September 3, 2008
4. How SLIPS are done on ANGEL. Presented at the Graduate Medical Education Retreat. Medical College of Wisconsin, Milwaukee, Wisconsin, October 8, 2009
7. Thoracic Trauma- What’s “old” and New. Trauma Nurse Specialist Refresher Course. WAC Milwaukee, Wisconsin, November 9, 2011.

15. Peer Reviewed Workshops/Presentations:
National
3. **WEBB TP**. Putting the “G” and “E” back in Graduate Medical Education. Presented at the Association for Surgical Education meeting March 2006.
13. Wade T, **WEBB TP**. Simulation in Interprofessional Skills Training: Does realism affect communication, stress or learning? Presented at the SERF forum at the Association of Surgical Education meeting March 23, 2011.


17. Wade TJ, **Webb TP**. Simulation in Interprofessional Communication Training: High Fidelity May Not Equal High Stress. Accepted for presentation at the Association for Surgical Education meeting March 23, 2012.

**Regional**


8. **WEBB TP**. Problem Based Learning Increases Resident Satisfaction with a General Surgery Educational Curriculum. Presented at the Association of American Medical Colleges Central Group on Educational Affairs Spring Conference, Columbus, Ohio, April 10-12, 2008.

Directors." Presented at the American Medical Colleges Central Group on Educational Affairs Spring Conference, Columbus, Ohio, April 10-12, 2008.


17. Wade T, **WEBB T**. Simulation fidelity does not affect stress response in interprofessional communication training. Podium presentation at the Wisconsin Surgical Society Fall Meeting, Kohler, Wisconsin, Nov 4, 2011.


**Local**


16. Committee Service:

**Medical College - Education**

- **08/2005 - Present**: M3 Clerkship Directors – Standing Ad Hoc Committee of the Curriculum and Evaluation Committee
- **08/2005 – Present**: MCW Course and Clerkship Directors
- **09/2005 – Present**: Patient Centered Care MS-3 Intersession Committee
- **03/2006 – Present**: Transition to Clerkship Committee
- **08/2006 – Present**: Injury Research Center Education Core Committee
- **09/2006 – Present**: Learning Portfolio Working Group: Subcommittee of the Education Committee of the Graduate Medical Education Council (GMEC)
- **05/2007**: Orthopaedic Hand Surgery Fellowship Internal Review Committee
- **08/2007 – 2009**: Professionalism MS-3 Intersession Committee
- **10/2009 – Present**: Education Committee of the Graduate Medical Education Council (GMEC)

**Department of Surgery - Residency Education**

- **07/2000 – Present**: Residency Evaluation Committee
- **03/2005 – Present**: Curriculum Committee
- **03/2005**: Curriculum Advisory Committee
- **07/2006 – Present**: Education Research Committee, Chair

**Clinical – Froedtert Hospital**

- **07/2002 – 07/2003**: Surgical Critical Care Committee
- **10/2006 – Present**: Trauma Performance Improvement Committee
- **10/2006 – Present**: Pharmacy, Nutrition & Therapeutics Committee
- **06/2007 – 11/2010**: Physician Satisfaction Committee
- **12/2008 – Present**: Epic Inpatient Advisory Council
- **05/2009 – Present**: Nursing Curriculum Development Committee
- **03/2010 – Present**: Alonzo P. Walker Chair in Surgery Search Committee
- **09/2010 – Present**: General Surgery Residency Program Director
17. **Medical College of Wisconsin Teaching Activities:**

**Medical Student Education**

- **07/2002 – Present** Lecturer, MS-3 Resuscitation and Perioperative Medicine Clerkship
  - Teach principles of trauma resuscitation: 10hrs of lecture, technical skills training and oral examination Repeated 12 months of the year

- **08/2005 – Present** Lecturer, MS-3 Surgery Clerkship – Trauma Service
  - 1 hr/month small group teaching session with Trauma students

- **08/2005 – Present** MS-4 Injury Control Selective Faculty
  - Lecture, supervise, and teach 12 MS-4 students per year

- **01/2006 – Present** Presenter & Small Group Facilitator, MS-3 Patient Centered Care Intersession
  - 1 day intersession - 1/year
  - Lecture covering principles of patient centered care
  - Small group facilitator for case discussions

- **05/2006 – Present** Lecturer, Abdominal Wall and Hernia, MS-3 Surgery Curriculum
  - 1hr 6/year
  - Lecture given to all MS-3 students on required surgery rotation

- **09/2008 – Present** Lecturer, Case Scenario, MS-4 Patient Safety and Quality Improvement Selective
  - 2hr 2/year
  - Lead small group case based discussions

**Resident & Fellow Education**

- **02/2002** Lecturer, Management of Gastric Bezoars. Pediatric Surgery Curriculum Conference.

- **02/2004** Lecturer, The Rationale for Operative Intervention in the 5.5cm AAA. Registrar Educational Conference. Exeter, England.


- **08/2005-Present** Attending, Trauma Service
  - 4 weeks for 8 /year with surgery team including medical students and residents
08/2005 – 06/2006 Lecturer and Mentor - ABSITE Study Group
06/2006
- Small Group Leader – 2 hrs/month, 7 sessions
- Precept and taught topics covered on yearly in-service exam. ABSITE Preparation Lectures
- Developed and implemented Mock ABSITE exam given yearly to all residents
- 6 hours/year question and answer sessions for all residents

08/2005 – Present Surgical Critical Care Curriculum
- Facilitate presentations and discussions at weekly meetings.
- Lecture regarding critical care topics twice per year (1 hr sessions)

07/2009 Lecturer, Emergency Medicine Technical Skills Session
- Taught chest tube indications and placement techniques to all emergency medicine residents and rotating students.
- Used chest tube assessment tool developed by myself to sign off senior EM residents.

General Surgery Curriculum
09/2005 – Present General Surgery PGY1 Curriculum
- 3 hours per session (6 sessions/year)
- Lectures, small group facilitation, skills stations and evaluation.

2005- Present Lecturer, Surgery Intern (PGY-1) Residency Education Core Curriculum
10/2005 - Presentation Skills and Video Review. Medical College of Wisconsin Intern Curriculum
02/2007 - Present Diversity Training. Medical College of Wisconsin Intern Curriculum.
06/2006 – Present General Surgery PGY2 Curriculum
- 7-10 hours per session (6 sessions/year)
- Lectures, small group discussions, skills stations and evaluation
- Problem-based learning facilitator
- Developed Jeopardy Quiz format sessions (6/year)

08/2008 – Present Lecturer, GME Elective Patient Safety and Quality Improvement
- Clinical aspects of Patient Safety
Continuing Education/ Faculty Development

2001 – Present  Instructor, Advanced Trauma Life Support
  o Dates: Typical 2 times/ year
  o Lecture (1 Hour) and teaching skills stations (4 hours)

6/2008 – 6/2009  Faculty Scholar in Quality and Safety
  o Participated in the development and acted as an initial learning participant in a faculty development course with the goal of teaching the teachers best practices in quality and safety improvement

8/2011 – Present  Faculty Osler Institute
  o Review course for General Surgery and Critical Care

Invited Grand Rounds Presentations


18. **MCW Students, Faculty, Residents or Fellows Mentored:**

- 06/2006 – Present  Tim Ridolfi, General Surgery Resident, Advisee
- 08/2007 - 2011  Matthew Cox, General Surgery Resident, Advisee
- 07/2009 – Present  Taylor Merkley Medical Student, Research Mentee
- 1/2010 – 1/2011  Shelly Vento Undergraduate student, Advisee
- 1/2010 – Present  Neeraj Mehta Medical Student, Advisee
- 7/2010 – Present  Amanda Amin, General Surgery Resident, Advisee
- 7/2010 – Present  Paul Jeziorsczak, General Surgery Resident, Advisee
  o  Advisor for Surgical Education Research Fellowship through the Association for Surgical Education

1/2011 – Present  Garth Brandal
  Medical Student, Advisee

1/2011 – Present  Allegra Saving, General Surgery
  Resident, Advisee

01/2011 – Present  Carolyn Pinkerton, General Surgery
  Resident, Advisee

2/2011 – Present  Berry Fairchild
  Medical Student, Research Mentee

2/2011 – Present  Clark DuMontier
  Medical Student, Research Mentee

4/2011 – Present  Jessica Grandlich, PA
  Physician Assistant, Advisee

10/2011 – Present  Andrew Vanderwerf
  Medical Student, Advisee

12/2011 – Present  Joshua Pearl
  Medical Student, Advisee

1/2012 – Present  Joshua Nelson
  Medical Student, Advisee

1/2012 – Present  David VerBunker
  Medical Student, Advisee

1/2012 – Present  William Krause, Advisee
  Medical Student, Research Mentee

1/2012 – Present  Stephanie Sullivan, Advisee
  Medical Student, Advisee

19. Programmatic Development:

12/2005 – Present  Author, ABSITE Mock Examination
  o  Developed and administered 200 question test to all residents for in-service preparation

02/2005 – Present  General Surgery PGY1 Curriculum
  o  Developed educational goals and objectives for PGY1 residents
  o  Developed 6 case based learning scenarios used as foundation for teaching during first week of curriculum
  o  Evaluation of content and format

02/2006 – Present  General Surgery PGY2 Curriculum
  o  15 hours/month
  o  Developed, coordinated, implemented, and evaluated general surgery curriculum for PGY2 residents
Recruited faculty for participation in 30 hours of teaching over each of six 3 day blocks of curriculum time

06/2006 – Present
Director, Surgical Learning and Instructional Portfolio
- 2 hours/ month
- Oversight and enforcement of compliance with learning portfolio
- Redesign and evaluation of effectiveness
- Design and development of online learning website including a web-based discussion board for promotion of self-directed learning

06/2007 – Present
General Surgery Surgical Skills Assessment Tools
- Developed and implemented competency assessment tools to evaluate resident performance in performing Central Line placement, Chest Tube placement, Bowel anastomosis, and Vascular Anastomosis
- Oversight and enforcement of resident compliance

04/2007 – Present
General Surgery Endoscopy and Ultrasound Training Curricula
- Development and implementation of resident training curricula including instructional and assessment plan and tools utilizing simulation
- Assessment of resident compliance and performance

11/2007 – Present
Trauma and Surgical Critical Care Web-Based Educational Platform
- Development of online learning website including web-based discussion board for promotion of self-directed learning
- Assessment of monthly resident compliance and performance

7/2009 – Present
Trauma and Acute Care Surgery Interprofessional Training Curriculum
- Oversight and Development of educational curriculum for trauma/acute care surgery nurses (6 half day sessions per year)
- Implement teamwork and communication simulation and training sessions for residents, nurses, and faculty
- Evaluation of impact of program

1/2011 – Present
Author, SESAP

BIBLIOGRAPHY
Refereed Journal Publications/Original Papers


Books, Chapters & Reviews


**Invited Publications**


**Non-Refereed Journal Publications/Original Papers**


4. **WEBB TP.** Geriatric Trauma Triage. EMS Newsletter. May 2010

**Peer Reviewed Abstracts**

1. **WEBB TP,** Mattos MA. Prevalence of Carotid Artery Stenosis in Patients Undergoing Coronary Catheterization and/or Revascularization: A Color Flow Duplex Study.

2. **WEBB TP.** Putting the “G” and “E” back in Graduate Medical Education.


6. Paul JS, **WEBB TP,** Kistler B, Weigelt JA. Intraabdominal Vascular Injury: Are we getting any better?


9. Leake R, Stellmacher P, Daidone S, Burzynski M, Simpson D, Brown K, Denson K, Duthie E, TGIF Collaborative. Can We Trust Student Self-Reports to Evaluate Geriatric Competencies Inclusion in Medical Student Education?

10. Denson K, Brown D, Simpson D, **TGIF Collaborative.** Don’t go it alone: A Multispecialty Collaborative to Teach Geriatrics in Third Year Clinical Specialties.

Posters


**Peer Reviewed: Video, Syllabi, or Other Teaching/Educational Material**
