

# Usefulness Of Reflective Journals In A Continuing Professional Development Process For A Pharmacy Leadership Course

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## Abstract

**Purpose:** An elective “Effective Leadership and Advocacy” course teaches students to be pharmacy leaders and life-long learners. Students in the course use reflective journals to guide self-improvement as part of a continuing professional development (CPD) process. The purpose of this project was to assess patterns in student use of learning stimuli and resources within their journal entries, as well as to assess perceived usefulness of the journals and the CPD process.

**Methods:** Students (N=34) were required to submit a portfolio consisting of at least 15 weekly journal entries at the conclusion of the semester. The portfolio’s template included sections for reflection, planning, acting, and evaluating student learning. After submission of the portfolio, an anonymous survey was administered to evaluate student perceptions of its value. The portfolios and post-course surveys were analysed to evaluate student approaches to using stimuli and learning.

**Results:** Fifty-six percent of students completed the survey; 68% of respondents found the reflective journal somewhat or very helpful in both identifying leadership goals and evaluating progress towards leadership goals; and 47% found the journal somewhat or very helpful in planning to achieve these goals. In the analysis of portfolios, 33% of journal entries cited a peer or professional discussion as a type of learning stimuli, and 32% cited colleague discussion as a learning resource.

**Conclusion:** Reflective journal portfolios were largely seen to be helpful among students. Similarities in student use of learning stimuli and resources may suggest a pattern among students and an opportunity to expand existing resources for future growth.

**Keywords:** Leadership, student reflective journals, continuing professional development.

## Introduction

Over the past 10 years continuing professional development (CPD) has become an increasingly important component of health professional training worldwide (Wallman *et al.*, 2008). Its prevalence has increased across healthcare specialties, including pharmacy (Wallman *et al.*, 2008). CPD is a learning process that requires self-reflection, systematic planning, action and evaluation in order to achieve professional goals. The CPD process is reliant on the individual’s ability to self-identify strengths and weaknesses, address them, and document them accordingly, all of which are crucial to the professional development process (McKauge *et al.*, 2011). Although continuing self-reflection makes CPD a paradigm with value throughout a pharmacist’s career, it is particularly important to train student pharmacists in the CPD process during the pharmacy school curriculum. Students not only need to

learn the skills requisite to become future practitioners, but also how to continue to hone their education after graduation using the CPD process (Wallman *et al.*, 2008). The U.S. Accreditation Council for Pharmacy Education has recognised the importance of developing student self-assessment skills and has developed guidelines to stimulate the use of standardised student portfolios and self-assessment within the Doctor of Pharmacy curriculum (Accreditation Council for Pharmacy Education). Furthermore, the American Association of Colleges of Pharmacy (AACP) includes as a curricular goal that student pharmacists should be able to independently assess them and commit to being a lifelong learner (American Association of Colleges of Pharmacy). The National Association of Boards of Pharmacists concurs with this approach and passed a resolution stating that student pharmacists should be educated on the CPD process while still in school (National Association of Boards of Pharmacy).

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### **CPD Models and Requirements**

Various models of CPD exist in several countries as requirements for maintaining pharmacy practice licensure (Roche *et al.*, 2006). Most models include a combination of reflective portfolio use, self-identification of learning needs and competency testing. Usually the reflective portfolios include both a written component of the self-reflection, checklists to determine the type of learning activity and what resources were used to address the learning need. CPD models at the student level are similar to their practitioner counterparts, with student reflective portfolios being a common introduction to the CPD learning process (Wallman *et al.*, 2008). The benefits of these reflective portfolios are: they promote lifelong learning, develop student reflective ability (Wallman *et al.*, 2008), document learning, and demonstrate the attitude with which the student approaches the reflective process (Roche *et al.*, 2006). In the pharmacy curriculum, reflective portfolios may be used in a variety of settings, as an adjunct to didactic and experiential coursework (Wallman *et al.*, 2008; Briceland *et al.*, 2010; O'Brocta *et al.*, 2012; Tofade *et al.*, 2012).

### **Limitations to the CDP Format**

An important component of CPD is the ability of third parties (be they preceptors or professors) to critically evaluate and give feedback to students (Wallman *et al.*, 2008). However, a limitation of the CPD process is that it is difficult to ascertain the true level of student reflection or the accuracy of the student's self-assessment (Austin *et al.*, 2007; Wallman *et al.*, 2008; McKauge *et al.*, 2011). In addition, it can be difficult to gauge the extent to which the student is writing reflections to meet the criteria of their institution, rather than as a true measure of their thought process (McKauge *et al.*, 2011). It is further difficult for third parties to distinguish between reflective ability vs. writing ability (Wallman *et al.*, 2008) or to discern the time commitment to the CPD process (Gruppen *et al.*, 2000; Roche *et al.*, 2006; O'Brocta *et al.*, 2012).

Student reflective journals sometimes include comments and feedback that the reflective process is a valuable one (Briceland *et al.*, 2010; Patterson *et al.*, 2013). However, students may experience problems participating in the CPD process. Despite being frequently asked to write reflective pieces as assignments, pharmacy students in some settings report lack of skill and difficulty reflecting on events as opposed to simply recounting them, as well as planning and evaluating events (McKauge *et al.*, 2011; Patterson *et al.*, 2013). Student participation in the CPD process does not guarantee student appreciation for the importance of the process, with one study showing >50% of pharmacy students unconvinced of its value in one study despite high faculty support for the initiative (O'Brocta *et al.*, 2012). Similarly, another study showed student ambivalence (%) to using CPD for leadership development in the future (Patterson *et al.*, 2013). Potential solutions to the ambivalence and strategies for motivating and engaging students include: training on the

proper approach to the reflective process, (Roche *et al.*, 2006), providing more of a structured and directed approach to CPD (Dornan, 2008), and giving regular feedback on the reflective journal process (Baxter *et al.*, 2001).

### **CPD among Students**

Although student utilisation of CPD is important, it is equally important that students are effectively trained how to utilise it properly, and preferably over the entire course of their pharmacy school curriculum (O'Brocta *et al.*, 2012; American Association of Colleges of Pharmacy; Accreditation Council for Pharmacy Education; National Association of Boards of Pharmacy). Since students have many demands on their time it is important to set aside time for this training (McKauge *et al.*, 2011). Students may not initially think to link their self-assessment skills with the time they spent on reflection. Generally, it is believed that lack of experience correlates with lower accuracy in self-assessment (Gruppen *et al.*, 1997). This can negatively impact the self-assessment process, particularly among students new to the CPD process. A study of medical students found that self-assessment of skill level was not predictive of the amount of time spent on the CPD process (Gruppen *et al.*, 2000). It is also believed however, that by demonstrating commitment to the CPD process as a student pharmacist, it will be easier to recognise development of one's professional growth as a pharmacist (Roche *et al.*, 2006). Indeed, it has been found that student aptitude at reflective journals improves with increasing use of the journals (Wallman *et al.*, 2008), even though the student's ability to accurately self-assess may vary and can remain incongruous with third-party evaluation (Woolliscroft *et al.*, 1993). It is therefore important that students be trained on how to accurately assess their progress and outcomes in the CPD process (Gruppen *et al.*, 1997; Austin *et al.*, 2007).

Students across various health professions recognise a link between participation in the CPD process and achieving goals as practitioners or as students (Roche *et al.*, 2006; O'Brocta *et al.*, 2012). Although the degree to which students believe this may vary, previous studies have shown that CPD is found to be valuable to students interested in improving their leadership skills (Patterson *et al.*, 2013).

At the University of Maryland School of Pharmacy, an elective "Effective Leadership and Advocacy" course teaches students to be stronger pharmacy leaders. The purpose of this project was to assess patterns in student use of learning stimuli and resources in the journals, as well as to assess perceived usefulness of the journals.

### **Methods**

The Effective Leadership and Advocacy (ELA) course is a two credit elective course offered in the Autumn semester of each school year. Thirty four students enrolled in the 2012 Effective Leadership Advocacy

class. This project was approved by the University of Maryland Internal Review Board. On the first day of the course, students were introduced to the concept of reflective journals and the CPD process (see Appendix A.) Students were asked to reflect on their leadership using the CPD portfolio, identifying leadership goals and then proposing plans on how to accomplish identified gaps during the reflection process. Students were required to use the reflective journal section of the portfolio weekly, and to document self-improvement and learning throughout the course as part of the continuing professional development process. To monitor student progress in using CPD, these journals were collected electronically a total of three times during the semester using 5-6 week intervals. Individual feedback was provided to students about how to enhance the use of the CPD process. Group feedback was also given after the first submission and a list of “do’s and don’ts” of proper reflective journal writing was prepared for the students. The final journal submission included the CPD portfolio complete with the reflection, planning, and acting sections plus the final journal entries not collected in the previous submission. A one page overall summary of their learning during the entire course was also requested at the conclusion of the course.

Following each learning activity, students documented how long the learning activity took, and more importantly responded to the following questions:

- “What did you want to learn?” Evaluation and Reflection;
- “Describe your experience considering the following.”
  - “What did you learn?”
  - “How will this new knowledge influence your leadership?”
- Stimulus: “What helped you to become aware of this learning need?”
- Learning Resources: “What resources did you use to achieve your learning objective?”

Students were asked to select a minimum of one learning stimulus that triggered the learning need. Examples of learning stimuli include discussing issues with peers, reading the literature and others (see Table I). Multiple learning stimuli could be selected if needed. Additional or miscellaneous learning stimuli could be specified under the “Other” category in the space provided. Similarly, students were asked to list selected learning resources that helped in addressing the identified learning need. Examples of learning resources include required courses, elective courses, interacting with faculty and others (see Table II). Again, students were able to identify multiple resources if they chose to do so. Students were told to choose a minimum of one learning resource for each journal entry, and could select multiple learning resources if need be. At the conclusion of the semester, after grades had been posted, students were administered a voluntary survey via Survey Monkey® to provide faculty with additional insights about how they used the reflective

journal process. We analysed the data to determine how students rated one question compared to other questions and to see if there was an association between the question items on the survey and the opinion responses.

**Table I: Learning Stimuli**

Stimulus-What helped you to become aware of this learning need?	Number of Entries	Percent of Entries
Discussion with peers	230	30%
Completing an assignment or lecture	109	14
Reading literature	88	11
Non-response	77	10
Other	74	10
Completing self-assessment	59	8
Preparing for a presentation	45	6
Receiving feedback	37	5
Performing research	34	4
Managing patient	16	2
Total	769	100%

**Table II: Learning Resources Used by Students**

What resources did you use to achieve your learning objective?	Number of Entries	Percent of Entries
Colleagues (discussion)	202	28.2%
Interaction with faculty	131	18.3
Reading (articles, journals)	118	16.5
No response	94	13.1
Elective classes	82	11.4
Other	70	9.8
Required classes	16	2.2
Rotation activities	4	0.6
Total	717	100%

## Findings

Characteristics of the journal entries were first collated and summarised according to the study’s research objectives (see Tables I-III). Significant differences in student choices of stimuli and learning resources were tested using Chi-square tests. The usefulness of the portfolio was also determined by percentage. In addition, the 5-likert scale responses on the post-course survey were aggregated and categorised as helpful, neutral or unhelpful.

Thirty-four students took the elective over a period of 16 weeks in the semester. A total of 379 entries were reviewed by faculty during the semester. As noted in Table I, the most common stimuli for those students

completing the survey were discussing issues with peers or other healthcare professionals (30% of all entries), followed by completing an assignment or lecture (14%) and reading the literature (11%). Several "Other" stimuli included various ELA class activities such as the etiquette dinner, the service learning project, and the class legislative visit.

The most common learning resource that students mentioned was discussion with colleagues (30% of all entries) followed by interaction with faculty (14%), and reading articles and journals (11%) (see Table II). Learning resources listed in the "Other" category included student organisations and conversations with practicing pharmacists. Most students who selected an elective course as a learning resource identified the Effective Leadership and Advocacy Course as their learning resource.

Out of the 34 students enrolled in the class, 56% (N=19) completed the survey and not all students answered all the questions. Thirty-seven percent of students reported that they were very or somewhat likely to use the reflective journal format to achieve future leadership goals and 48% would recommend this type of portfolio format to a friend or colleague who is looking for a way to address their own leadership goals (see Table III). Over two-thirds of students reported that they found the portfolio very or somewhat helpful in being able to identify leadership goals, evaluate progress towards leadership goals, and plan and achieve future leadership goals. The results of an exact Chi-square test showed that there is no association between the question items on the survey and the opinion responses ( $p=0.3410$ ). A general linear model with logit link and Poisson distribution showed that question item

was not statistically significant ( $p=0.9995$ ) while opinion responses were significantly different ( $p<.0001$ ). Combined data reveal that 63.4% of the students found the portfolio helpful, 28% were neutral, and 8.6% found it unhelpful. We conclude overall that the students found the portfolio useful for their leadership growth.

The survey also collected written feedback from students. Most of the written comments were positive and reported that reflective journals are valuable, for example: "*It allowed me to apply the lessons that I was learning in class. For example, outlining a course of action to achieve a mission and monitor my progress.*" Regarding using the reflective journal format in the future, one student wrote: "*It was best for me to determine my own format. It's good to know what options are out there though.*"

### Discussion

Results indicate that overall, the students appreciated using the CPD framework as they completed their journal entry assignments. However, it was a new concept to many of them and thus, many felt uncomfortable using this approach at first. Some students questioned its value and purpose; and it took course faculty several attempts to describe its usefulness and the fact that using it as students will help prepare them to use similar formats as practicing pharmacists. Eventually, as noted in the end-of-semester survey, most students recognised its utility and value with almost two-thirds of respondents indicating that the format was very or somewhat useful.

Looking ahead into the future, several (37%) stated that they would continue to use the CPD format as they

**Table III: Post-Course Survey Responses**

<b>Question</b> How helpful did you find the portfolio in:	<b>very helpful</b>	<b>somewhat helpful</b>	<b>neither helpful nor unhelpful</b>	<b>Somewhat unhelpful</b>	<b>very unhelpful</b>
1. identifying your leadership goals?	6(32%)	7(37%)	2(11%)	3(16%)	1(5%)
2. implementing plans to reach your leadership goals?	2(11%)	7(39%)	8(44%)	0(0%)	1(6%)
3. evaluating your progress towards your leadership goals?	3(16%)	10(53%)	5(26%)	0(0%)	1(5%)
4. planning and achieving your past leadership goals?	3(17%)	8(44%)	6(33%)	0(0%)	1(6%)
5. planning and achieving your future leadership goals?	5(26%)	8(42%)	5(26%)	0(0%)	1(5%)
<b>Question</b>	<b>very likely</b>	<b>somewhat likely</b>	<b>neither likely nor unlikely</b>	<b>somewhat unlikely</b>	<b>very unlikely</b>
How likely are you to use this type of format to achieve your future leadership goals?	3(16%)	4(21%)	5(26%)	3(16%)	4(21%)
Are you likely to recommend this type of portfolio format to a friend or colleague who is looking for a way to address their own leadership goals?	3(16%)	6(32%)	6(32%)	2(11%)	2(11%)

completed their journal entries in other courses. However, most stated that they preferred to use their own format, probably because they still felt more comfortable using their own documentation approach.

Regarding recommending the CPD format to others, the survey revealed mixed results. Almost one-half (48%) of respondents indicated that they would recommend this type of portfolio format to a friend or colleague who is looking for a way to address their own leadership goals. Another 32% were rather neutral to whether they would recommend or not while another 22% stated definitely not. Most survey respondents would probably inform their peers of the usefulness of the CPD format, but many will probably recommend that they develop their own unique methods for journal entries. It would be interesting to follow this cohort of students as they move through the PharmD curriculum and also into actual practice to see if their perceptions and use of the CPD format change. School of Pharmacy faculty and preceptors will continue to reinforce the value of this approach in the future so hopefully adoption of the CPD format will increase as the system continues to mature.

It would also be interesting to compare the results of this student survey to results of a similar survey of pharmacy practitioners. We would anticipate similar results from practitioners who are not familiar with the CPD approach, since they would have the same level of discomfort as students. They may also not perceive its value because they have never had to use it in the past in their career planning exercises. It is hoped that once practitioners become more familiar with the CPD approach, they would embrace it.

### Summary and Limitations to Study

The limitations to this study revolve around the fact that the survey was voluntary and included self-reported perceptions of students completed at the end of the semester. Thus, only about 60% of the class completed the survey and there were no pre-course, post-course comparisons made. However, the survey provided many valuable insights for faculty members as they prepare to teach the course in the future. First of all, the feedback from students helps faculty prepare their introductory comments that will articulate the value and utility CPD format – hopefully placing it in a context that students can more readily identify with. Faculty will provide examples of previous entries in order to make current students more comfortable with the format. They may also invite former students into the first class so that they can share their positive and challenging experiences with using this unique format. Inviting a preceptor who used the format in their personal life to speak to the class is another possibility.

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*This portfolio belongs to:*

**Name:**

Any questions regarding the Learning Portfolio can be addressed to:

Robert Beardsley, PhD

Toyin Tofade, MS, PharmD, BCPS, CPCC

Adapted from the NC CPD portfolio

<http://www.ncbop.org/CE/CPDLearningPortfolio.pdf>

Complete this as part of a reflective self assessment or improvement process.

## Appendix A



### Student Learning Portfolio

#### Using Continuous Professional Development (CPD) Principles

#### **Recommended for ongoing use:**

- Self Assessment
  - Do this at the beginning of the course
  - Use some of the responses to help construct a plan
- Education Action Plan
  - Let this guide you as you go through the course
- Reflective Journal
  - Use this to record significant learning that you had pre-identified in the Education Action Plan.

Self Assessment	Date:
<p><b>Professional strengths and opportunities for development:</b></p> <ol style="list-style-type: none"> <li>1. List School-related leadership situations from the past year in which you felt confident or competent:</li>   <li>2. What skills contributed to the successes above? (You may want to create a learning objective to further develop this skill/strength)</li>   <li>3. List school-related situations from the past year in which you felt that you were lacking confidence or competency:</li>   <li>4. What skills would you want to develop or improve to better manage similar leadership situations in the future?</li>   <li>5. What skills, attitudes, values or knowledge do you need to work on or acquire for the coming year?</li> </ol> <ul style="list-style-type: none"> <li>• Attitudes:</li>   <li>• Values:</li>   <li>• Knowledge:</li> </ul>	

**Education Action Plan**

What do you want to learn or what skill would you like to improve? (Learning Objective)	What resource will you use?	When do you plan to start this Learning Activity?	When do you plan to finish?	When did you finish?	Learning Activity Worksheet Completed? Yes/No

NAME:

DATE

**Reflective Journal**

Date:

Time spent engaged in learning:

**Learning Objective(s)** *What did you want to learn?*

A mandatory activity:  
Complete this every week unless otherwise stated on Black board.

**Evaluation & Reflection**

*Describe your learning experience. Consider the following:*

- *What did you learn?*
- *How will this new knowledge influence your leadership?*

**Reflection Notes:**

**Stimulus**

*What helped you to become aware of this learning need?*

- Discussion with peers or other healthcare professionals
- Managing a patient or practice problem
- Completing a self-assessment
- Receiving feedback about my practice (Professor or preceptor feedback)
- Completing an assignment or lecture
- Reading literature
- Performing research
- Preparing for a presentation
- Other \_\_\_\_\_
- Other \_\_\_\_\_

**Learning Resources**

- *What resources did you use to achieve your learning objective?*
- Interaction with faculty
- Reading: articles, journals
- Colleagues (discussion)
- Rotation activities:
- Required classes