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## Revitalising reflective practice in pre-service teacher education: Developing and practicing an effective framework

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## **Revitalising reflective practice in pre-service teacher education: Developing and practicing an effective framework**

Reflective practice plays a significant role in effective teaching. However, for pre-service teachers (PSTs) it can be a difficult process to not only think reflectively but to understand its importance in their teaching practice. This research focused on the development of a framework for written reflective practice embedded within professional experience (PEX) units. In tutorials, PSTs were provided with video technology to film themselves performing teaching tasks. A reflective framework provided a structure to assist in reflecting on the teaching task. Dialogical teaching and coaching by tutors as well as peer discussion scaffolded the reflective process. At the end of the semester, PSTs and tutors were invited to complete a survey on the reflective processes they had used. This paper focuses on the development of the reflective framework and the feedback received on the use of the framework as a reflective tool. The findings reveal that the PSTs and most tutors found the format useful in structuring reflective practice. The framework and its repeated use over time has potential to build professional knowledge and skills and sustain ongoing reflective practice into the PSTs professional careers.

Keywords: reflective practice; reflection; professional experience; reflective writing; templates; pre-service teachers

### **Introduction**

Reflective practice is critical for sustaining quality practices in learning and teaching and is the hallmark of a professional educator (Huntley, 2008). In Australia, both the Australian Institute of Teaching and School Leadership (AITSL) and the Australian Children's Education and Care Quality Authority (ACECQA), are organisations responsible for determining teacher performance criteria (AITSL) and quality practice for early years education (ACECQA). Both organisations emphasise the

importance of reflective practice to assist with ongoing professional development. Placing reflective practice as a priority impacts the development of teacher education courses to ensure future teachers can reflect on their practice and document this in a way that is sustainable. However, it can be a difficult practice to authentically embed reflective tools into programs and practice for pre-service teachers (PSTs) (Ng, et al., 2014).

Tutorials in two professional experience (PEx) units were re-designed for PSTs to have agency to work collaboratively with peers and tutors to engage in reflective practices. The PEx units in the first and second year of a four-year Bachelor of Education (Early Childhood) course were recast with the use of Swivl video technology and a reflective writing framework. The Swivl technology allowed PSTs to film themselves completing a range of practical tasks they would most likely be asked to do on their PEx. The written reflective framework was modelled, practiced and discussed with peer collaboration in tutorials with tutors acting as coaches and guides. The aim was to provide an explicit structure to engage PSTs in reflection, trialled in tutorials and then used on PEx. This paper reports on the development and use of the reflective framework.

## **Literature review**

Reflective practice transects the ideas of reflective teaching and teacher inquiry (Han et al., 2017) and is built on the work of Schon (1983) and Dewey (1933) that enhances thinking to assist in making a situation clearer or improving practice. Reflection is often described as taking place after the action (on action) and while the action is being carried out (reflection in action) (Schon, 1983). Bruno and Dell'Aversana (2018) suggest that these types of reflection are not exclusive as reflection 'on action' allows the learners to progressively adopt 'reflection in action.'

The term 'critical reflection' suggests the capacity to scrutinise and alter entrenched beliefs (Fook, 2015). Fook describes two ways of being critically reflective; one of which is to unearth or change underlying beliefs. The Early Years Learning Framework [EYLF] (DEEWR, 2009, p. 14) describes critical reflection as 'closely examining all aspects of events and experiences from different perspectives.' This aligns with Dewey's (1933, p. 9) thinking on reflection to question the 'grounds of one's beliefs,

the process of rationally examining the assumptions'. The second meaning of critical reflection as described by Fook is to focus on power with an understanding of how it operates. The word critical in both descriptions implies the ability to be change so that awareness of assumptions 'can provide a platform for transformative actions' (Fook, 2015, p. 441). Such thinking moves action beyond replicating practice to using critical reflection to inspire and strengthen transformative teaching and foster problem solving, creativity and collaboration (Khales & Meier, 2013).

Reflective practice and critical reflection are often used interchangeably but are not mutually exclusive. Reflective practice is the process of continually improving one's teaching through engagement in it where critical thinking capacity is a necessary feature (Edward & Thomas, 2010). Russell (2018), however, believes that reflective practice and reflection are epistemologically different, as critical reflection embraces the epistemology of the university which is familiar and reflective practice reflects the epistemology of professional practice which is unknown and alien to those learning how to teach. This paper takes the position that critical reflection is a subset of reflective practice (Fook, 2015) as the research took place in PEx units that focussed on reflection on practical teaching tasks not usually performed on campus. The reflective framework developed thinking about practice, assisted with praxis and connected thinking to early childhood course content.

Reflection in teacher education courses has been articulated in a number of different forms. Beauchamp (2014) suggests that reflective practice is not intuitive, so a step-by-step procedure is used to support the development of reflective skills. Studies have revealed that PSTs struggle to adequately reflect on their practice (Santagata, Zannoni & Stigler, 2007) and structured approaches may be the best support (Author 1). PSTs need conceptual tools to assist them in interpreting their teaching (Archugar & Carpenter, 2018), especially if demonstrated through authentic tasks and hands-on support (Author 2).

Reflective frameworks are an important way to scaffold PST's learning and have been shown to be effective (Verlaan and Verlaan, 2015). Thinking and writing reflectively allows PSTs to re-examine what has occurred with a view towards improvement. A

number of frameworks were examined in the development of the tool used in this research, and are described later in this paper.

Much has been written about effective university environments that influence the quality of reflective learning (Bruno & Bracco, 2018; Dean & Wright, 2016). The use of trainers, in some cases tutors (on campus) or mentor teachers (on PEx) to guide reflective practice has been beneficial to the learner. The creation of a pedagogic environment which encourages collaboration enables the sharing of thoughts and ideas to increase self-awareness (Ng et al., 2014). Dean and Wright (2016) describe activities in front of peers, as important in an effective learning environment. Learning in this way assists in generating practice knowledge but also in making unspoken knowledge known and critical reflection to take place for transformative practice (Bruno & Dell'Aversana, 2018). These collaborative opportunities were central to the research process outlined below.

### **The study**

The theoretical underpinnings of this research were based on the pragmatic worldview using convergent mixed methods (Creswell & Creswell, 2018). The implementation merged quantitative and qualitative data with a focus on what works, towards developing solutions to problems. Based within an action research framework (O'Connor and Diggins, 2002), the first implementation of the research reported here informs future iterations. The guiding questions for the study were:

- How useful was the reflective framework in assisting PSTs to reflect?
- What other reflective tools had PSTs used in their course?

### **Context and participants**

This study took place in second semester units in the first and second year of a Western Australian Bachelor of Education (Early Childhood Studies) course. After ten weeks on campus, PSTs were randomly allocated a PEx placement in an early years or primary school setting. The first year PSTs in the early years setting worked with children from birth to three years of age over a three-week period. The primary school setting accommodated second year PSTs working with children from four to six years of age for four weeks. PSTs used Swivl devices and the reflective template in the content sessions and were invited to take these with them on their PEx. At the

conclusion of the teaching of the content, a survey focused on the experiences using the reflective framework was completed.

### ***Data collection:***

The research project was approved by the University Ethics Committee prior to commencement of data collection and all participants gave informed written consent. A survey was developed by the authors to ascertain the PSTs experiences with the reflective framework and the use of Swivl filming technology (Appendix A). Only the reflective framework responses will be discussed here. The survey was specifically designed for this research and trialled with a small group of PSTs prior to implementation to ensure it provided clear questions and consistent results. The mixed methods survey comprised of 10 questions that incorporated three-point Likert scale responses, yes/no answers and spaces that requested detailed comments. The survey was conducted by an independent research assistant and completed by PSTs in the final tutorial before the PEx. The tutors were invited to participate via an email. Three questions differed for the tutors that asked for more description about tutorial topics and the use of the template. The PSTs were given the option of completing the survey online or on paper – the paper results were later added through direct copying of written responses into the online survey in the Qualtrics database.

### ***Data analysis:***

The survey data was collected and collated using the Qualtrics database where responses were examined for frequency across the two cohorts. The open-ended responses were grouped and coded for similar themes to identify the overall ideas of the group. These were examined for frequency of similar ideas across the groups to identify the key issues and feedback related to the framework presented in the template. The following results section focuses on questions four to seven from the survey (Appendix I).

## **The process**

### ***The reflective framework***

The research process began with the development of the reflective framework as academics across the course had lamented about PST's reflective writing. It was

important that the framework engaged PSTs through a simple but systematic inquiry into their own beliefs, actions and abilities that developed critical reflection skills.

A number of frameworks were investigated such as that of van Manen (1977) who described three layers of reflection: technical, practical and critical. In this framework technical is the plan of action; practical, examines the teaching practice, goals and purposes, and critical accounts for both previous layers as well as ethical, moral and social decisions. The use of the three layers and focus on practical and critical elements were taken from this to be incorporated into the framework developed for this research. Additionally, the model proffered by Zeichner and Liston (1987) described three layers technical, situational and ethical. Technical, the usefulness of the teaching used to reach aims; situational takes into account contextual issues and reasons for choices in dealing with these, and ethical, accounting for how they have succeeded or not in contributing to a humane society. The ethical element in this study informed some of the prompting questions chosen. The model of Rolfe, Freshwater and Jasper (2001) was eventually chosen as the main base for the framework due to its simple nature and that it reflected similar layers, foci and processes to the other models. The final framework also utilised the language of a template provided within the ePortfolio platform used within the university that the students would utilise later in their degree program (Author 2). Rolfe et al., (2001) describe their model as assisting those in the ‘helping’ professions (such as teaching) and provided a simple structure based on three questions – what, so what and now what?

The first phase, ‘What’ is a descriptive level of reflection whereby the situation is described. Reflective prompting questions are provided such as: what happened, what is the problem, what actions did I take and what was the response of others? The second phase of the reflective process ‘So what’ aims to build knowledge and further the PST’s connection to theory. Prompting questions focus on aspects such as: what does this tell me, what knowledge can I bring to the situation, what is my new understanding, what does this teach me and how do my experiences link to my academic, professional and/or personal development and knowledge? The third and final phase ‘Now what’ is action orientated and asks the PSTs to think about what they need to do to make things better, what broader issues need to be considered and what are the consequences? (Rolfe et al., 2001).

The authors contributed to the conceptualisation of further subsidiary questions more suited to the early childhood context as shown in Appendix II. Modifications to the subsidiary questions suggested that PSTs make connections to relevant teacher performance documents and early childhood pedagogical documents to assist with praxis in the So What? stage. All tutors were briefed on the framework and the thinking that brought about its development.

### ***Implementation***

The academic team discussed the pedagogy of teaching reflection, focusing on optimal learning environments and the types of tasks that would assist PSTs and tutors to embed reflective practices. Experiential learning in the higher education context offers students the opportunity to link what they are learning in their studies with the experiences they will have in a workplace setting. Kolb's (1984) experiential learning cycle of four phases: experience, reflect, reframe and reform provided a teaching lens to explain to tutors how the reflective process would be explored in tutorials. Additionally, Huntley's (2008) work on reflective writing, and mentoring and coaching were utilised in developing tutorial tasks with the reflective framework at the centre.

In the first week of face-to-face classes the reflective process and the reflective framework were explained and modelled to PSTs by the tutors. An example reflection was provided and explicitly explained to show what quality critical reflection requires to develop professional learning. In each year level, at the conclusion of the weekly planned tutorial task, the tutor explicitly modelled each component of the reflective template to describe each element of the What?, So what? and Now what? in relation to the task and provide suggestions of links to theory and policy documents. The implementation and discussion of the framework occurred each week for ten weeks where a new PEx task would be enacted, discussed and used for reflection.

In the first-year unit the tasks centred on the seven National Quality Standards and how each standard could be implemented in the workplace. The PST's were provided a specific question from each standard to provoke their understanding and to engage in further reading and clarification. The reflective template was used to frame their



responses. An example for Standard 5 was to develop warm and nurturing relationships with babies and toddlers through one-to-one time with children singing, talking and being together. PST's chose a song or fingerplay and recorded themselves with a partner during the interaction. They were asked look back at the video and use the What?, So what? and Now what? procedure to evaluate the interaction using eye contact, appropriate body language and gestures. The PST's reflected on their understanding of professional practice explaining the connection between themselves, the children and families and the teaching practices that underpin professional practice.

In the second-year unit the tasks were focused on teaching and engagement strategies that support children's learning such as demonstrating, modelling, scaffolding, using explicit instruction, using puppets etc. In one week, the PEx task was discussed in class, modelled by the tutor, enacted and time given to PSTs to talk in small groups or pairs about the reflective questions. Each student then wrote an individual reflection using the template.

## **Results**

This paper reports on the questions in the survey related to the effectiveness of the framework to support PST's individual reflections after partaking in a scaffolded process in class including tutor and peer discussion. The following section describes the analysis of the data collected through the survey of the PST's (77 first year and 41 second year = 118) and the three tutors. The results are discussed in relation to the year level cohort of the pre-service teachers as the experience of reflection differed for each year.

The first question asked the PSTs to respond regarding the usefulness of the template. The response here was a Likert scale and the cohort results are seen in Table 1 with details of the responses to the why question outlined for the individual cohorts to follow.

**Table 1***Usefulness of reflective template (n=118)*

Cohort	No response	Not useful	Somewhat useful	Very useful
1st year students	2 (3%)	8 (10%)	29 (38%)	38 (49%)
2 <sup>nd</sup> Year students		1 (2%)	14 (34%)	26 (64%)

***First year cohort***

When asked how useful the written reflective template had been the first year PSTs responded in a positive way. As shown in Table 1, more than three quarters of the cohort (87%) thought the reflective framework was very or somewhat useful. Nearly half the cohort 49% (n=35) reported that it was very useful, while 38% (n=29) found it somewhat useful. Only 10% (n=8) of PSTs replied that it was not useful. Three percent (n=2) failed to respond to this question. Some PSTs described why it was useful for them and most comments described the simplicity of the structure. One PST wrote, ‘I found the what, so what, now what template very useful’ (PST58) while another commented on the simplicity of the ‘table-like format’ (PST59).

***Second year cohort***

For the second-year cohort, responses about the usefulness of the reflective template mirrored that of the first-year group but increased in usability, as nearly all (98%) found it very or somewhat useful. (Table 1). Over half 64% (n=26) found it very useful, 34% (n= 14) found the template somewhat useful and 2% (n=1) of PSTs reported that the framework was not useful. One PST stated, “I found it a lot easier to collate my ideas & reflections” (PST 78).

The second section of the survey focused on the use of reflection in other units of the course. Table 2 shows which formats were listed for each cohort of students with additional year level detail included.

**Table 2***Types of reflection used (n= 118)*

Student Cohort	No response	No specific format	Reflection in lesson plans from professional exp unit	3 R's (responding, relating, reconstruct)	Written feedback (individual)	Reflective journals (what, so what, now what)
1 <sup>st</sup> year	28		4	22	6	17
2 <sup>nd</sup> year	11	2	3	20	4	12
Total	39	2	7	42	10	29

***First year cohort***

When asked about reflection across other units, there appeared to be units that required reflection and PSTs were asked to describe any formats or tools they had used. This question for the first-year cohort was unanswered by nearly half 46% (n=36) of the respondents. All students had taken the same units, however, for those that answered, a small number 5% (n=2) did not think they had done any reflective practice in other units.

When asked about reflective formats and tools 36% of PSTs did not respond, however, for those that did they could nominate more than one answer – thus there are not a total of 100% in the results. The formats described (Table 2) were the 3R framework 29% (n=22), reflective journals 22% (n=17), written tutor feedback 8% (n=8%) and reflection in lesson plans 5% (n=4). PSTs described: ‘We wrote down the positive, negatives and improvements’ (PST10) and used the ‘Three R format, report, relate, reconstruct’ (PST18). Tools used were described by 12% (n=9) as the iPads and Swivl cameras currently used in the tutorials, 10% (n=7) had used word documents on their laptops, 19% (n=15) used a template given in a technology unit and 23% (n=18) mentioned other tools or strategies such as video and discussion or think pair and share.

***Second year cohort***

A larger number of the second year PSTs 88% (n = 36) reported having to reflect in their degree previously, 5% (n=2) said they had not reflected and 7% (n=3) reported being unsure. When asked about reflective formats and tools 27% (n=11) of PSTs did not respond. For those that did, they could nominate more than one answer – thus results do not equal 100%. The formats described were the 3R framework 49% (n=20), reflective journals 29% (n=12), written tutor feedback 9% (n=4), reflective

discussions 7% (n=3) and 5% (n=2) other answers with no specific format (Table 2). No PST in the second-year cohort described the iPad and Swivl technology as a tool for reflection. One respondent described using a laptop and word document, 29% (n=12) used a template given in a technology unit and 42% (n = 42) mentioned strategies they had used such as ‘verbal reflections, written reflections’ (PST117) and ‘discussions in class’ (PST109).

### ***Tutorial staff***

There were three on campus tutors who agreed to participate in the online survey. One tutor took multiple tutorials in first year (Staff 1) and the other two tutored in second year (Staff 2 and 3). The tutors in second year thought that it was a very useful framework and more useful than other reflective tools they had used with PSTs. One commented that ‘the reflective template was great’ (Staff 3) while the other felt ‘the template was very helpful for both students and the tutors to guide reflection. It allowed students to reflect at a deeper level’ (Staff 2). This staff member elaborated on this in the survey by stating:

The reflective tool has been easy to explain to students and is relatable to all contexts that were reflected on in the unit. Students also commented to me that they preferred this template to any other they have used in the course (Staff 2)

These two tutors indicated they had used a 3R framework before in a previous first year unit.

The implementation was not without concerns, as the first-year tutor was less convinced of the usefulness of the template. The tutor stated the framework ‘related better to some topics than others’ and ‘the students did struggle with the reflection template, in particular for week 1’s topic’ (Staff 1) which highlights the importance of the task with which the template is used.

## **Discussion**

The findings show three main areas for further discussion – the framework, what counts as reflective practice and tutorial pedagogy.

### **The framework**

For the majority of PSTs, the reflective template was useful in collating and structuring their ideas where a simplistic three-tiered format with descriptive questions

as scaffolds resonated. The framework was built on a strong theoretical model (see development process) and teamed with prompting questions throughout the sequence. Wright, Fisher and Frey (2020, p. 17) state that '[t]o simply recount an event does not engender learning. Seeing the frame, and not the picture, is crucial.' Dahl and Erikson (2016) caution, however, that it may not be the reflection model in itself that assists in students' professional development but how it is integrated into the local setting and used over time. This is an important consideration as the template is used more widely across the program in the future and connects to the theme of pedagogy examined later. Future iterations of the research would include the examination of the PSTs reflective writing to identify if the framework not only proved useful but if it led to deeper levels of reflection across the tutorial implementation.

### **What counts as reflective practice?**

Around half of the first year PSTs did not answer the question about reflection in other units and non-responses in itself can be telling. Montagni, Cariou, Tzourio and González-Caballero (2019) suggest a number of reasons for non-responses in surveys and one given is the participants are unable to answer the question. Yet the other half of the cohort attempted to describe activities or tasks that they believed were reflective. Author (3) suggests that where reflective practice is not explicitly taught it becomes a process of telling and assuming PSTs understanding, which is unacceptable considering its importance in legislative frameworks.

The PST's had described using a number of tools for reflection in the first two years of their course but found this framework was easier to understand and apply. The goal was to apply this framework early in the PSTs degree to lay the foundation for reflective thinking and writing. The What?, So what? and Now what? has elements across three levels of reflection (van Manen, 1977) to foreground the next steps to facilitate the transfer of these skills to alternate frameworks and applications with an increased focus on critical reflection (Fook, 2015). The results of this research provide a positive starting point for this process.

### **Agentic pedagogy**

The pedagogy of agency and dialogical teaching and coaching used within the learning environment may have contributed to the positivity of students towards the

framework. Tutors and peers assisted in scaffolding reflective practice where PSTs were actively involved in a dialogical relationship with the intent to improve practice (Corbin Frazier & Eick, 2015). Furthermore, the framework, through repeated implementation and practice, transferred agency to the PSTs allowing them to gradually take responsibility and control of their reflective practice (Svojanovsky, 2017). Practising the use of the framework for reflection with practical teaching tasks similar to those on field experiences assisted in making it useful. Practicing and reflecting on tasks that would typically occur on PEx gave PSTs incentive and kept them engaged in the process as they could see its applicability (Zeichner, 2010). Such tasks position professional knowledge as a lens to view reflection, where collectively constructing practical knowledge guards against a top-down approach that Schon (1983) opposed (Han et al., 2020). This was assumed to be actioned on the PEx that took place after the data collection but could be explored in future iterations of the research.

Brookfield (1995) maintains the importance of collaborative learning with peers and teaching in a mutually cooperative environment. Creating a safe space that promotes an open collaborative approach through ‘working with’ rather ‘doing to’ develops PST’s agency in the reflective process (McLeod, 2011). Giardiello, Parr, McLeod and Redman (2014) support the notion of empowering PST’s agency within the reflective process to assist them to move past the surface questions of ‘how to’ and ask deeper questions about ‘what and why’ for broader educational purposes – in this case the PEx.

For the tutor in first year, the weekly tasks were described as not always fitting with the template. There is a plethora in the literature about the way that reflective practice should be taught and most highlight that reflective practice is taught explicitly (Rogers, 2005, Ng et al., 2014) and tutors should model and discuss the metacognitive processes in the reflective process (Williams et al, 2018, McLeod, 2011). Williams et al., (2018), for example, found that literacy educators had to be specific and intentional in how they taught and modelled reflective thinking and processes. Giardiello et al., (2014) support the notion that teacher educators should use pedagogy that allows PST’s to engage with direct experiences and draw on this to support reflection. All tutors will need to be briefed more thoroughly about how to teach the reflective process and tasks will be examined as to their suitability in achieving the goal of critical reflection. Additionally, future research will include the collection of examples from the PSTs before and after

the implementation of the framework to provide more rigorous evidence of the effectiveness of the template over time.

## **Conclusion**

Findings from this study contribute to the literature on how to effectively use reflective practice to prepare for PEx. This study has shown that a framework that is effectively scaffolded creates a safe space for PST's to work collaboratively and to engage in deeper reflection. The use of a template is an important asset moving forward and can provide a point from which to continue to build and improve reflection as PST's build their knowledge and skills throughout their studies and into their careers. Future research will make adjustments to the prompting questions of the framework and the survey instrument to gain a deeper understanding of how the template was used. Research following PST's use of the template as a reflective tool on practicum will be more comprehensively examined with a shift in focus to building upon this framework to apply reflective thinking and writing more broadly.

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## **Appendix I**

### *PST survey questions*

1. What unit did you use the Swivl robot in?
2. How useful was the Swivl robot in assisting in your reflection?  
  
Very useful, somewhat useful and not useful (please circle)
3. Describe how the video footage assisted you in reflecting on the task you completed in the tutorials?
4. How useful was the written reflective template?  
  
Very useful, somewhat useful and not useful.
5. Have you use reflection in other units at University in this course? Yes/No/ not sure
6. List the unit codes where you have been asked to reflect?
7. Describe the format or tools you used?
8. Could you see yourself using video recording in your practice- to record your teaching, viewing it and using it as a point of reflection? Yes/ No/ Not sure
9. Would you consider using video technology in the remainder of your degree and in your future practice? Yes/ No/ Not sure
10. What do you see as the barriers to using video recording in your reflective practice?

## Appendix II

*Reflection template developed for use: Adapted from Rolfe et al., (2001) and Kolb (1984)*

REFLECTION TEMPLATE EARLY CHILDHOOD STUDIES			
Stages	Rolfe et al. (2001) reflective model	Explanation	Your reflection
<b>What?</b>	is the problem/difficulty/ reason for being stuck/reason for feeling bad/reason we don't get on? was my role in the situation? was I trying to achieve? actions did I take? was the response of others? were the consequences for the student? Myself? Others? feelings did it evoke in the student? Myself? Others? was good/bad about the experience?	Describe the situation. What were you doing? What happened? What did you do? What did you expect? What was different? What was your reaction?	
<b>So what?</b>	does this tell me/teach me/imply/mean about me/my class/others/our relationship/my patient's care/the model of care I am using/my attitudes/my patient's attitudes? was going through my mind as I acted? did I base my actions on? other knowledge can I bring to the situation? could/should I have done to make it better? is my new understanding of the situation? broader issues arise from the situation?	Why does what you did matter? What are the consequences and meanings of your experiences? For you? For others? How do your experiences link to your academic, professional and/or personal development and knowledge?  If you want to in this section, you can show your knowledge by connecting to a theorist, EYLF, NQS and AITSL.	
<b>Now what?</b>	do I need to do in order to make things better/stop being stuck/improve my teaching/resolve the situation/feel better/get on better/etc., etc.?	What are you going to do as a result of your experiences? What will you do differently next time? How will you apply	

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broader issues need to be considered if  
this action is to be successful/might be  
the consequences of this action?

what you have learned?  
Do you need to do more  
learning about something  
in particular- what is it  
and where will you go for  
more information?

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