The Sorcerer’s Apprentice and the Reflective Practitioner

BARBARA ROSENSTEIN
Department of Education, Ben Gurion University of the Negev, Post Office Box 653, Beer Sheva, Israel 84105; e-mail: rbarbara@bgumail.bgu.ac.il

ABSTRACT This article presents a practical use of the film version of ‘The Sorcerer’s Apprentice’. It is the outcome of the author’s experience of discovering the clear illustrations of Schön’s concepts in the film and later of using the film in her classes on the subject of ‘reflection’. The article is divided into three sections: a reflective description of the film version of ‘The Sorcerer’s Apprentice,’ illustrating Schön’s concepts of ‘knowing-in-action’, ‘reflection-in-action’ and ‘reflection-on-action’; a discussion of levels of reflection presented by van Manen and Bain et al.; and a case in which the film was used as a basis for teaching reflection to beginning teachers in a teacher certification program at Ben Gurion University of the Negev, Beer Sheva, Israel.

This article presents a practical use of the film version of ‘The Sorcerer’s Apprentice’. It is the outcome of my experience, first, of discovering the clear illustrations of Schön’s concepts in the film, and later, of using the film in my classes on the subject of ‘reflection’.

The article is divided into three sections: a reflective description of the film version of ‘The Sorcerer’s Apprentice’, illustrating Schön’s concepts of knowing-in-action, reflection-in-action and reflection-on-action; a discussion of levels of reflection presented by van Manen (1991) and Bain et al. (1999); and a case in which I used the film as a basis for teaching reflection to beginning teachers in a teacher certification program at Ben Gurion University of the Negev, Beer Sheva, Israel.

The Sorcerer’s Apprentice and the Reflective Practitioner

The classic Walt Disney version of ‘The Sorcerer’s Apprentice’ in Fantasia (1940) can be used to illustrate the concepts examined by Don Schön in The Reflective Practitioner (1983) and in Educating the Reflective Practitioner (1987). Schön proposes the use of practice as a basis for professional training, rather than standard academic studies, ‘technical rationality’ in his terms. He suggests that it is necessary to wade in the mucky waters of practice rather than cling to the high ground of academic analysis. The system of apprenticeship is akin to the kind of learning within a
practicum advocated by Schön. In the sixteenth century, Paracelsus himself claimed that ‘the universities do not teach all things, so a doctor must seek out old wives, gypsies, sorcerers, wandering tribes, old robbers, and such outlaws and take lessons from them ... Experiment is not sufficient. Experience must verify what can be accepted or not accepted. Knowledge is experience’ (Hargrave, 1951). The story of ‘The Sorcerer’s Apprentice’ illustrates this view, pointing out both its advantages and disadvantages. The story alone could provide an illustration of Schön’s theory of the epistemology of practice, but Disney’s synesthetic adaptation of the tale, set to Paul Dukas’s music, even further exemplifies the process and problems of educating the reflective practitioner. A similar analysis of a popular adaptation of a children’s story is given by Robert F. Newby, Mariellaen Fischer and Barbara Reinke using Mary Poppins as an illustration of family therapy techniques (1992).

The film version of ‘The Sorcerer’s Apprentice’ in Disney’s Fantasia contains examples of knowing-in-action, reflecting-in-action stimulated by surprise or perplexity, the consequent on-the-spot and move-taking experiments and the ensuing reflection-on-action. It includes the professional setting complete with value system, language, tools and norms of the trade. The film even hints at the failure of ‘technical rationality’ opposed to the epistemology of practice as described by Schön.

The opening scene presents the sorcerer demonstrating his professional know-how. Here he demonstrates what Hargrave calls the ‘features, stance, gait and gestures’ of the professional. He is truly the embodiment of the professional sorcerer. The camera catches his knowing-in-action by focusing on his glistening eyes and his elegant long fingers performing the task of conjuring. The camera switches to the apprentice at his mundane task. He has mastered the technique of balancing the buckets of water, but he finds the task tiring and boring. He puts down his heavy buckets and reflects on the action of the sorcerer. The camera switches back to the sorcerer in the act of conjuring. He is shown in all the trappings of his profession—sorcerer’s hat and long, flowing robe. He is shown conjuring up magic using his magnificent hands, arms, head and face. The atmosphere embodies the value system of the conjurer. His professional competence and satisfaction are clear. The beauty of his creation and its rapid diffusion attest to his expertise. The apprentice looks on in awe. The lighting and shadows indicate the magical power of his actions and the skeleton implies evil as well. The scene is reminiscent of the gestures of sorcery described in Exodus in the scene in which Aaron holds the rod before Pharaoh: ‘Aaron cast down his rod before Pharoh, and before his servants, and it became a serpent’ (Exodus, 7:10). The art of conjuring is clearly a complicated matter, but it could be construed as a function of the trappings—the hat, the gestures, the robe. When he is finished, the sorcerer removes his hat, places it on the table and exits.

At this point, the apprentice faces a change in the situation (the sorcerer’s absence), which sparks his reflection-in-action. He picks up the hat and puts it on his head. His whole presence is transformed. By wearing the uniform of the professional he becomes a professional himself. His stance changes, his hands seem elongated. He magically assumes the appearance of the knowing-in-action of the sorcerer and casts a spell on the broom. Now he becomes the coach. He teaches the broom how to perform his task. Roles however, cannot change as easily as appearances. The
knowledge of the professional is not contained in his paraphernalia alone. The apprentice’s gleeful smile and cheerful gait belie his lack of truly professional knowing-in-action. He has taken the ‘suspension of disbelief’ a step too far. The broom follows and performs the task admirably. However, the broom cannot reflect. The broom does not respond to the perplexing situation of too much water. It continues to fetch and dump water with no reflection at all about the consequences of its action. The entire house fills with water, awakening the apprentice, who had retreated happily into a dream world where he had successfully become the professional sorcerer, having adapted his stance, sweeping gestures and magical powers. Faced with the unexpected occurrence of the inundation, he reflects. He frames his problem: the broom must be stopped. He looks to his previous experience: he holds his hands up in a stopping motion. This culturally grounded gesture has obviously worked in the past in situations when he wanted someone to stop. In this case, it fails. He reframes the problem: if he can’t stop the broom through reason, he must physically prevent it from continuing. He sees an axe on the wall. From previous experience he knows that an axe can chop a piece of wood. Thus, reflecting-in-action, he grabs the axe and chops the broom in half. This act constitutes his second on-the-spot experiment, but his first move-taking experiment. This term is used by Schön to describe an experiment requiring an action that is formulated with an intention resulting in one of three outcomes: affirmation of the intention, disaffirmation of the intention, or an unexpected outcome unforeseen by the original actor. Unfortunately for the apprentice, his experiment produces the third possibility—an unexpected outcome. The broom now multiplies many times over and all the duplicates continue carrying and dumping water. Again, the imagery of the Bible is evoked: ‘now the magicians of Egypt ... cast down every man his rod, and they became serpents’ (Exodus, 7:11,2). The flood swells. The apprentice is once again faced with a perplexity. Again, he reframes the problem: if he can’t stop the broom itself, he’ll try to block its way. He tries to close the door. This constitutes another move-taking experiment. It fails as well. The broom cannot be stopped by a closed door. The water level rises. He reframes the problem again: if the broom can’t be stopped, maybe the water can be eliminated. In vain he tries to pour out the water by the bucketful. The water level rises even higher. In the rushing waters of the flood he falls on the sorcerer’s book. He looks frantically for a solution there (an attempt at traditional or procedural rationality), but finds nothing. Hopeless, he floats down the whirlpool on the book.

At that moment, the sorcerer returns. Faced with the flood (an unexpected situation), he reflects-in-action, frames the problem in terms of removing the water first rather than the source of the water, raises his arms and performs his magic even though his head is bare. The waters recede. The brooms withdraw. The sorcerer approaches the apprentice. By this time the apprentice has reflected on his action and has retreated to his former stance of lowly apprentice. He returns the sorcerer’s hat and hands him the broom. He tries to placate the sorcerer by showing him his buckets, indicating that he is ready to resume his previous occupation. The sorcerer flings him away with the broom, underlining the gap between their professional abilities. The sorcerer, however, seems to understand
that the apprentice was just trying to put into practice what he had learned before he was ready.

Here we see a glimpse of the sorcerer in the role of coach as well as model. It is only a glimpse because missing from this enlightening exposé of Schön’s concepts in educating the reflective practitioner is, indeed, the element of ‘educating’. The role of the coach is not in evidence and perhaps this omission accounts for the learner’s failure to perform ‘professionally’. Missing here are the elements of description and joint reflection so necessary to the successful outcome of the practical experience. We have the action, the observation and the reflection, but not the description needed by the coach to give meaning to the rest. There is no ‘education’ in the true sense of the word—‘bringing out’. In the film, the process of apprenticeship stops short of the mark. According to Schön (1987):

> In the early stages of the practicum, confusion and mystery reign. The gradual passage to convergence of meaning is mediated—when it occurs—by a distinctive dialogue of student and coach in which description of practice is interwoven with performance; and the complex interactions of student and coach tend to conform to a few basic models, each suited to different contexts and kinds of learning. (p. 20)

Interestingly enough, this element of reflective dialogue is often neglected by those practicing reflection in the field. Perhaps the evident reluctance of the sorcerer to train and thus empower his apprentice can give us a clue to the power relationships that often exist in the real world of coach and pupil.

**Levels of Reflection**

One way of strengthening the beneficial connection between coach and learner is to devise a more comprehensive means of reflecting and examining reflection. Evidently, the concept ‘reflection’ is a difficult one to understand and apply to practice. Part of the difficulty is due to the many different kinds of reflection in which one can engage. Deciding what to wear is one form of reflection, and theorizing about presentation of self (Goffman, 1959) is another on the same subject at a different level. How can students learn to distinguish between degrees of reflection, and how can they train themselves to recognize and change levels of their own reflection? A framework through which both coach and learner can examine reflection would contribute to greater understanding. Van Manen dealt with this issue in 1977 by defining four levels of reflection:

1. everyday thinking;
2. incidental and limited reflection on our practical experience;
3. systematic reflection with the aim of theoretical understandings and critical insights; and
4. reflection on reflection that examines how knowledge functions and how knowledge can be applied to active understanding.

These distinctions provide a basis for deeper analysis of reflection. The levels
extracted by Bain et al. (1999) from their study of the reflective journals of 35 students provide an excellent guide to the analysis of reflection and to the development of reflective skills. The levels as described by Bain et al. (1999) are the following:

- Level 1, reporting the event as it occurred;
- Level 2, responding to the event in a spontaneous and emotional manner;
- Level 3, relating to the event in terms of past experience and knowledge;
- Level 4, reasoning about the event in terms of alternatives, examining assumptions, and conceptualizing characteristics of the occurrence; and
- Level 5, reconstructing the event in terms of theories that can be applied to a broader range of experiences.

Although these levels are not hermetically sealed, they do provide a framework to help understand reflection and to reflect better.

Case Study

I combined the use of this framework and the video of the Disney version of ‘The Sorcerer’s Apprentice’ as an exercise in a semester course in reflection for preservice teachers within the framework of a teacher’s certificate program. After viewing the video, the students wrote a reflective journal that Mickey Mouse would have written after his experience. The students were instructed to write a journal in the form of three columns: the event, reflection-in-action, and reflection-on-action. Then, in class, we discussed the journals in terms of levels of reflection. Representative examples selected from the journals and the discussions are presented in Table I.

The first example illustrates the journey through reflective thought. The student, as Mickey Mouse/Apprentice, first sought his own interest and an easy way out of his job. His motives are self-centered and his thinking does not go beyond satisfying his immediate desires. The student says that Mickey assumes that since he observed magic he is capable of performing magic. At this point, Mickey reaches only level two—responsive reflection. During reflection-on-action, however, Mickey moves up to level 5. Here the student states that Mickey reflects on his failure to control the broom by realizing that observation is not enough, that a different system of learning is needed to combine observation and practice. By putting themselves in Mickey’s place, the students gain a better understanding of the process of reflection and are better equipped to reflect on their own. By distancing themselves from the process of reflection, they are able to distinguish among levels of reflection more clearly and can transfer this understanding to their own reflective ability. This process is illustrated in column 4, in which students reflected on their own reflections of Mickey’s thought processes.

These are just a few samples of the reflections that students wrote in their journals and the outcomes of the discussion using Bain et al.’s levels as a framework. They illustrate the success of the use of this visual aid in the teaching of reflection. They indicate the use of reflection itself as a tool for learning.
<table>
<thead>
<tr>
<th>Event/Action</th>
<th>Reflection-in-action (R in A)</th>
<th>Reflection-on-action (R on A)</th>
<th>Discussion of levels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A broom is in the corner of the room and Mickey performs magic on it to make it do his own job.</strong></td>
<td>I am skilled enough in magic because I observed the sorcerer so I will try to lighten my own workload.</td>
<td>Now I know that it isn’t enough to observe, rather, one needs deeper knowledge of the basics and the process of performing magic together with experience with a sorcerer in order to be able to perform magic.</td>
<td>R in A demonstrates level 2—responding to the event. R on A demonstrates level 5—reconstructing based on theories of learning—a combination of experience, observation and guided practice.</td>
</tr>
<tr>
<td><strong>A broom is in the corner of the room and Mickey performs magic on it to make it do his own job.</strong></td>
<td>I think I’ll teach the broom to transport the water for me since I have magical powers and can do it. After all I am wearing the sorcerer’s hat.</td>
<td>I related to the broom as if it had the same characteristics as I do—human characteristics. However, the broom is just an object and doesn’t think. Therefore, my basic assumption was wrong—you can’t assume that others think and react the way you do.</td>
<td>R in A demonstrates level 2 reflection—responding to the situation. R on A demonstrates level 4—reasoning and conceptualizing, and level 5—reconstructing by developing a theory that can be applied to other situations—the paraphernalia of the profession.</td>
</tr>
<tr>
<td><strong>The broom doesn’t stop bringing water and Mickey can stop it from doing so.</strong></td>
<td>I’ll try stopping it with violence—by chopping it with an axe.</td>
<td>Using violence made the problem worse. It might be that violent solutions don’t lead to desirable results.</td>
<td>R in A demonstrates level 3—relating to the event via past experience and knowledge. R on A demonstrates level 4—conceptualization and drawing conclusions.</td>
</tr>
<tr>
<td><strong>While looking in the Magic Book Mickey gets caught in a whirlpool and gets pulled down.</strong></td>
<td>I still am not a sorcerer. In order to be a sorcerer it’s not enough to observe.</td>
<td>I understood that I had to study the practice before I could know enough to perform it.</td>
<td>R on A level 4—conclusion that observation is a not sufficient enough method for learning a profession.</td>
</tr>
<tr>
<td><strong>Mickey Mouse doesn’t know how to stop or reverse his magic spell on the broom.</strong></td>
<td>I just don’t know what to do. I’ve tried everything to no avail.</td>
<td>I haven’t learned enough magic in this program of apprenticeship. Perhaps a different program is needed, one in which the sorcerer coaches me while I observe and practice?</td>
<td>R on A—level 5—reconstructing based on theories of learning a profession.</td>
</tr>
</tbody>
</table>
Attempting to bridge the gap between learning through experience and learning through experience with the help of a guide is the source of the body of literature that has emerged surrounding the notion of reflection in practice and educating reflective practitioners in the field of education. How do we encourage, facilitate, and promote suspension of disbelief without creating multiple broomsticks of pedagogical errors? A reflective viewing of Disney’s ‘The Sorcerer’s Apprentice’ could provide a springboard for discussion of this disturbing issue.

References


