

## Expert or Innovator?

Excerpted from Gerald Roos' "Am I an Innovative Teacher"

Consider the following two case studies. Two new English teachers, Jake and Steven, with similar subject-matter backgrounds from elite private universities, set out to teach Hamlet in high school (Grossman, 1990).

In his teaching, Jake spent 7 weeks leading his students through a word-by-word explication du texte, focusing on notions of "linguistic reflexivity," and issues of modernism. His assignments included in-depth analyses of soliloquies, memorization of long passages, and a final paper on the importance of language in Hamlet. Jake's model for this instruction was his own undergraduate coursework; there was little transformation of his knowledge, except to parcel it out in chunks that fit into the 50-minute containers of the school day. Jake's image for how students would respond was his own responses as a student who loved Shakespeare and delighted in close textual analysis. Consequently, when students responded in less than enthusiastic ways, Jake was ill-equipped to understand their confusion: "The biggest problem I have with teaching by far is trying to get into the mindset of a ninth grader."

Steven began his unit on Hamlet without ever mentioning the name of the play. To help his students grasp the initial outline of the themes and issues of the play, he asked them to imagine that their parents had recently divorced and that their mother had taken up with a new man. This new man had replaced their father at work, and "there's some talk that he had something to do with the ousting of your dad" (Grossman, 1990:24). Steven then asked students to think about the circumstances that might drive them so mad that they would contemplate murdering another human being. Only then, after students had contemplated these issues and done some writing on them, did Steven introduce the play they would be reading.

What did the second teacher have that the first one lacked? He knew how learners learnt and he knew how to lead the learning process. This latter knowledge is known as pedagogical content. Expert teachers are good teachers because they have knowledge of pedagogical content.

Are all expert teachers innovative? Consider two sushi experts.

One excels at following fixed recipes; the other is able to prepare sushi in a flexible way according to the needs of his clients and the situation. The first is highly skilled; an artisan. His actions are routine. He approaches his task as an opportunity to use his expertise to do tasks more efficiently. This is a valued asset in a busy restaurant. Good teachers, expert teachers, are often like this - especially if they have been a teacher for a long time. They do things well and efficiently and learners get good results.

The second sushi expert is more of a virtuoso, a maestro. He treats the task as an opportunity to explore and expand current levels of expertise. He exhibits these qualities despite the fact that his training has been identical to that of the first sushi

expert, mainly focused on skills. What this second sushi expert has is adaptive expertise. He remains flexible and adaptive to new situations.

When we are able to monitor our own levels of understanding and decide when it is adequate and when it is not adequate, then we are being adaptive experts. Adaptive experts are able to approach new situations flexibly and to learn throughout their lifetime. They continually assess and try to move beyond their current levels.

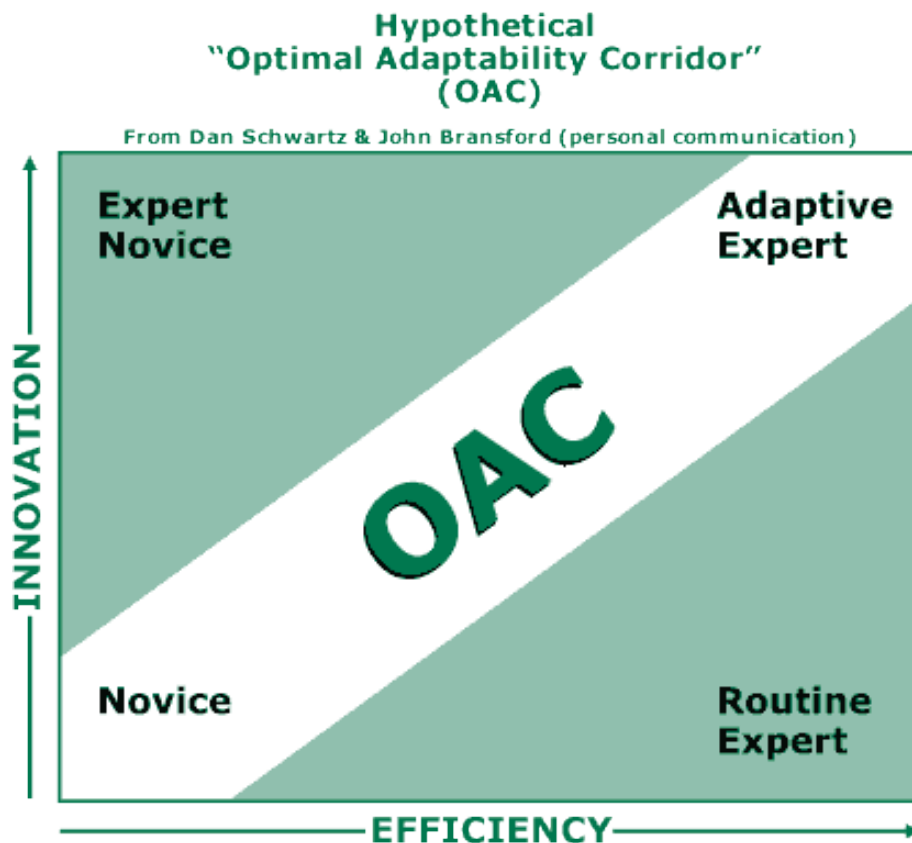


Figure 1: Efficiency and innovation in transfer

Figure 1 suggests that efficiency has a tendency to produce "functionally fixed behaviours".<sup>1</sup> Routine experts are good at what they do but do not learn new things while doing so. Efficiency is important because it frees a person up to concentrate on other aspects of the new situation that may require non-routine adaptation. Innovative interactions involve reaching beyond the immediately known.

According to Bransford, interacting with other people, and with artifacts, is a powerful way to accelerate the development of innovation. In some ways one can state that idea as "you learn the most when you try it out". Being an adaptive expert means being efficient and innovative.

<sup>1</sup> Schwartz, Bransford, Sears, *Efficiency and Innovation in Transfer*, p 29.