Two Rules for Work
R. Russell Rhinehart 2018-06-06
Develop Your Potential Series for CONTROL
Vol. 32, No. 8, August 2019, pp 45.

Start early <u>and</u> wait 'til the last moment.

That axiom may seem to be contradictory, but consider this: The situation is always changing. So, if you invest effort into a project and complete it early, by the time it is needed, "They" may want something totally different. The customer changes its mind as it comes to understand its needs, the business environment context changes, the enterprise management changes, laws and regulations change, and as time progresses we come to understand nuances that reshape the objective. You've probably worked on a project that was shelved before its completion, cancelled by a seemingly capricious leadership. So, it makes sense to not invest time and effort in something that might never be needed, or make a final decision that may be overturned later when the situation has changed or is better understood. This would just waste time, start processes that would have to be overturned, or reveal an error in a decision. So, wait until the last moment to start on a project or declare a choice.

It seems that procrastinators have the right idea! But, the concept is not to delay because of laziness, or fear, or sloth. The concept is to be most intelligent and efficient about your effort or your reputation, to postpone commitment.

However, waiting to the last minute means that any plan or design or solution is incompletely developed, inefficient, not optimum. So, start early in the planning, even if holding back on the action.

Work in parallel, not serial.

You must build the foundation before constructing the first floor, then you can build the second. You cannot install the upper floor first. There is a logical sequence to things. You cook dinner then eat it. The reverse sequence does not make sense. You learn the concept of numbers and arithmetic before algebraic symbolic manipulation, which is before calculus. You can't take the fifth step in a walk before taking the first. Many experiences in life would indicate that things need to be done sequentially, in series. Complete the one stage, then start the next; and complete it prior to starting the next.

I believe that this "work in serial" rule is a valid guide when the sequence is well defined. But, what about design of something new, entering into a new contract, or performing product or process development. If you complete one stage before going to the next you may eventually find something unexpected in the path or future stage, and the discovery would indicate a different approach should have been taken in the first stage. Consider building a road from here to there. You don't start building before you scout-out the terrain. If you don't know what lies ahead, and if you start building at your feet, your road may lead to a lake or chasm or swamp or ledge. When you get to that obstacle, you will realize that it would have been better to start the road leading to an alternate path, and that the building effort was inefficient or wasted.

Whenever we do something new, we need to forecast what lies ahead before cementing the first stage. You need to draft all stages in the design or contract or relationship or development, so that you can see

how all stages depend on the others. Sketch each. After you see that all can be integrated, then each can be completed.

A painter does not start a painting in the upper left of the canvas, commit to it, then paint what is adjacent, then continue serially across the canvas. The painter will envision the entire work, consider design the interaction of images and colors for a desired effect, then paint. Rarely does a book author start, complete, and perfect Chapter 1, before sketching subsequent chapters. Getting to Chapter 5, the author may realize that Chapter 1 needs to be revised to frame the topic, and that the former effort in perfecting Chapter 1 was wasted. Nor does a chemical process designer detail the reactor out of context of the implications of heat transfer, distillation, and recycle. Any time you are doing something new or seeking a solution, draft all stages before completing any one. Work in parallel. Work on all phases simultaneously.

When teams of people divide up a novel project, each team should not complete their part in isolation thinking that the initial plan was complete. At the end they may find that what another team designed undoes what their part needs or undermines their attempt at optimization. Instead, each of the parallel efforts should sketch their solution; and throughout the process of development, communicate with all other teams to ensure that the solutions can be integrated.

Working in serial will seem efficient, will be organized, and will provide a sequence of milestone achievements to celebrate in your monthly and quarterly reports. This will acquire multiple “attaboys” over the life of the project. Working in serial is rewarding and very tempting. However, in anything new, work in parallel, not serial. Sketch all stages to ensure that they will be compatible when integrated, then ink. However, again, be sensitive to the needs of your supervision to see concrete progress.

Russ Rhinehart started his career in the process industry. After 13 years and rising to engineering supervision, he transferred to a 29-year academic career. Now “retired”, he returns to coaching professionals through books, articles, short courses, and his web site www.r3eda.com.