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## Encouraging innovation in the workplace and the educational system

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Individual success and the success of a company are reliant on being on top of one's game in a competitive environment. Becoming too comfortable doing what you've always done can lead to obsolescence. How can we go about generating that next BIG idea – one that will make us rich and famous and more employable or to ensure prosperity of the company in the future? Our current educational system and most workplaces stress convergent thinking with the completion of specific tasks and relatively shallow comprehension of a wide range of subjects. Such an environment does not foster creativity. This is not to say, however, that we should eliminate accumulating knowledge in the given field and unrelated fields as this form the basis for the divergent thinking prior to the creative insight needed to solve a problem. Frequently, the initiation of the new idea comes from one individual – and after they bounce their idea off others is when the idea takes shape; when others provide their feedback and modifications to the idea. For this sort of group brainstorming to work effectively, the group needs to trust one another. Discussed will be how to shift the attitude from protecting an individual's ownership of an idea to disclosing and sharing what the individual perceives to be a new idea. Ideas need to “incubate” for innovative insight to discover solutions to a problem sometimes in an unrelated environment (when driving, in the shower, during a walk) to allow for the idea to formulate and coalesce. The new idea then needs to be refined to address what's workable and what's not. Specifically identifying what won't work – essentially what will cause the project to fail is often more important than seeking a successful outcome. We have long been taught to be afraid of failure. Innovation, on the other hand, requires that we accept failure as a good thing and as a path to success. In fact, deliberately trying to fail may aid in figuring out that next billion-dollar product. Giving the freedom for students and employees to pursue their long-term goals with passion and persistence provides a driving force to take projects to successful completion. This is sometimes referred to as “grit” where individuals aggressively pursue a line of thinking needed to successfully produce a new idea for a product or new way of doing something. Although there is no formula for teaching grit, curiosity or imagination in the classroom or workplace, rewarding what is perceived as grit, will make some employees and students grittier. Techniques to foster innovation, which differ in the educational system and the workplace, will be presented. Ironically, teaching methods used to promote students' divergent thinking are not mainstream and not in line with our archaic educational system. For the most part, higher educational institutions have failed to arm graduates with analytical reasoning and problem-solving skills. Hopefully, change is afoot to move toward a more engaging “active learning” environment with programs that may incorporate, for example, “maker spaces”, and investigational and entrepreneurial activities that practice analytical reasoning and problem-solving skills where the student or employee's creative potential can be unleashed.

### Biography

Julie M. Fagan is currently the Associate Professor in Rutgers University, New Jersey, USA.

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