In general, design patterns are not beneficial for more complicated designs as they provide flexibility at the cost of complexness. On instance where using a design pattern would not be beneficial is when there is a simple problem that does not require a really complex solution. Having a simple problem and using a design pattern can cause the complexity of the problem to grow and make the problem harder to solve and maintain over time.

One specific example of this could be implementing a Factory design pattern for a problem that only has a few classes that will most likely not be changing. Implementing the factory class may add unnecessary complexity and leave developers stuck.