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Problem Solving Methodologies

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Problem Solving Methodologies

Problem-solving methods are practices via which an issue or circumstance is analyzed and proper solutions are implemented (Libguides.bellevue.edu, n.d). Different methodologies can address different problems based on the cause and the preferred solution. In addition, employers are looking for employees who can recognize and ask crucial inquiries that can result in better outcomes in different work environments. In this regard, research suggests that employees should thrive on learning varied techniques used to solve problems based on their reasoning and evidence that guide a particular strategy.

Numerous techniques and methodologies are used to solve problems, with the fundamental strategy following a five-stage process (Cuesta.edu, n.d). The process generally starts by identifying the concern in detail. During the identification stage, the present state of the problem is scrutinized in comparison to the desired outcome. The second stage involves analysis of the problem identified in stage one. During this step, it is essential to learn as much as possible about the problem, and this can be done by looking beyond what is obvious and stretching the imagination to identify the creative options available. The third stage involves formulating possible solutions to the problem identified. When thinking about possible solutions, it is advisable to be creative and develop an array of solutions. In addition to that, after considering all the possible solutions, each solution should be evaluated based on the advantages and disadvantages (Cuesta.edu, n.d). It is crucial to think of three things; how, when, and where each solution can be applied. Further, both the long and short-term results of the varied solutions should be considered. The fifth stage is to settle for a chosen solution based on three considerations; the solution's compatibility with priorities, its practicality, and the risk of implementing the solution deemed fit.

Having looked at the five-stage process of solving process, this part of the paper looks at the different solving problems. One of the methodologies used in problem-solving is root cause analysis, which is applied to trace the origin of the problem. Through this methodology, one can track what transpired, how the problem occurred, what led to the issue, and what can be done in the future to prevent the problem from happening. A root cause analysis methodology is effective because it deals with the source of the problem and implements a lasting solution to the issue. In addition to that, another approach to problem-solving involves the trial and error method, which involves a series of repetitive attempts until a solution is found (Study.com, 2017). Though this approach seems random, it is adequate to be based on prior information or understanding. For instance, a programmer understands that pieces of text should be surrounded in quotes but is unsure whether to use single or double quotations. In this example, it is better to try the two quotes to determine which one works.

Another problem-solving methodology is difference reduction. This approach calls for the breakdown of the more significant problem into more minor elements that can be addressed separately (Study.com, 2017). However, the most crucial step in this methodology is determining what steps are necessary to take one from the current state to the desirable state where the final goal can be addressed. In this regard, one should apply the phase and replicate the entire practice till the ultimate problem is addressed. At times, difference reduction is not the firmest means to unravel an issue because it involves taking some steps backward to move forward, hence the delay (Study.com, 2017). For example, the fastest way to get inside one's house is to walk through the door. However, where an entity is locked out of their home, they are forced to visit their close relatives to fetch the spare key.

Countless problem-solving methodologies can solve problems, but it all depends on analyzing the problem to identify the most appropriate choice. Regardless of the methodology adopted, it must follow a five-step process that identifies the issue, analyzes the problem in detail, generates different solutions to the problem, analyzes their effectiveness in solving the problem, and chooses the most appropriate solution best on compatibility problem in question.

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