Evaluation of Basic Flight Training with Full Avionics System versus Conventional System by Using Information-Understanding-Practice Triangle

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Countries have been switching their basic flight training platforms from subsonic jets to turbo propeller single engine aircraft which makes considerable fuel savings due to fiscal constrictions. Besides this switching process, commitment to high technology in the fighter platforms forces the countries to use mainly avionics system also in the training platforms. In this context, Turkish Air Force is the first air power using full avionics system in the basic jet training. However, experienced instructor pilots raised questions that avionics systems usage will affect the basic flight training negatively. In this paper, this problem is examined on the basis of information-understanding-practice triangle which is the mandatory way of obtaining the result in practical education. Each edge of this triangle covers a part of education. Achieved efficiency on each edge of the triangle shortens the size of the triangle and increases the efficiency by downsizing. The contribution of avionics systems productivity is examined thoroughly for each edge. In this study, the total benefit is expressed geometrically and contribution of avionics system to the flight training is compared with the contribution of conventional system. Additionally, when each sortie considered as a triangle, due to necessary training requirements are caught earlier, total number of triangles and also cost of education decreases. Due to lack of available data has not been handled empirically.