

The Impact on Final Sculpture by the Sequence of Parts : Exemplified by the Three-dimensional Chessboard in DefiZen Puzz

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ABSTRACT

The brain is a self-organizing system. Therefore whatever the information was given at first will form as a type of information which resulting in subsequent information to be difficult to restructure the old patterns to create any new patterns. This research thesis uses the DefiZen Bricks, by assembling it in different orders and comparing the final results to see if the order matters in the end. Since each DefiZen Bricks are not identical, it seems to be the ideal way to reflect information flows of a real life society. DefiZen Bricks has many different shapes, this study intends to compare from the patterns of a three dimensioned chessboard. Since it 's difficult to picture the image of a chessboard in three dimensions, we showed the standard result of a 3D chessboard pattern to the participants from the very beginning of this experiment, so that the participants could eventually piling up the expected shape of a 3D chessboard. Each and every one of the 24 participants was given by fixed and random orders to finish the piling. The final comparison of the 3D chessboard pattern of the fixed and random sequence are based with Dendrogram and cluster diagram drawn by KJ method, and the whole assembling procedures were drawn by Rhino the graphic software. This experiment records a 23 properly assembled results with fixed order, and completely failed to deliver any correct results with random order. This conclusion matches the theory referred by De Bono about how information sequence will affect the interpretation of the final data. In addition, the study also found some geometric structures turned out to be more flexible in variability and to have a particular way to sustain than the original consistent structure after the special combination; the theory is similar with the Chinese knot and the Kongming lock. Possible applications from the structure finding are Billiard racking paper, Chinese knots and 7-11 bags.

Keywords : DefiZen、Dendrogram、KJ method、Chinese knot、Three-dimensional chessboard, cluster

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