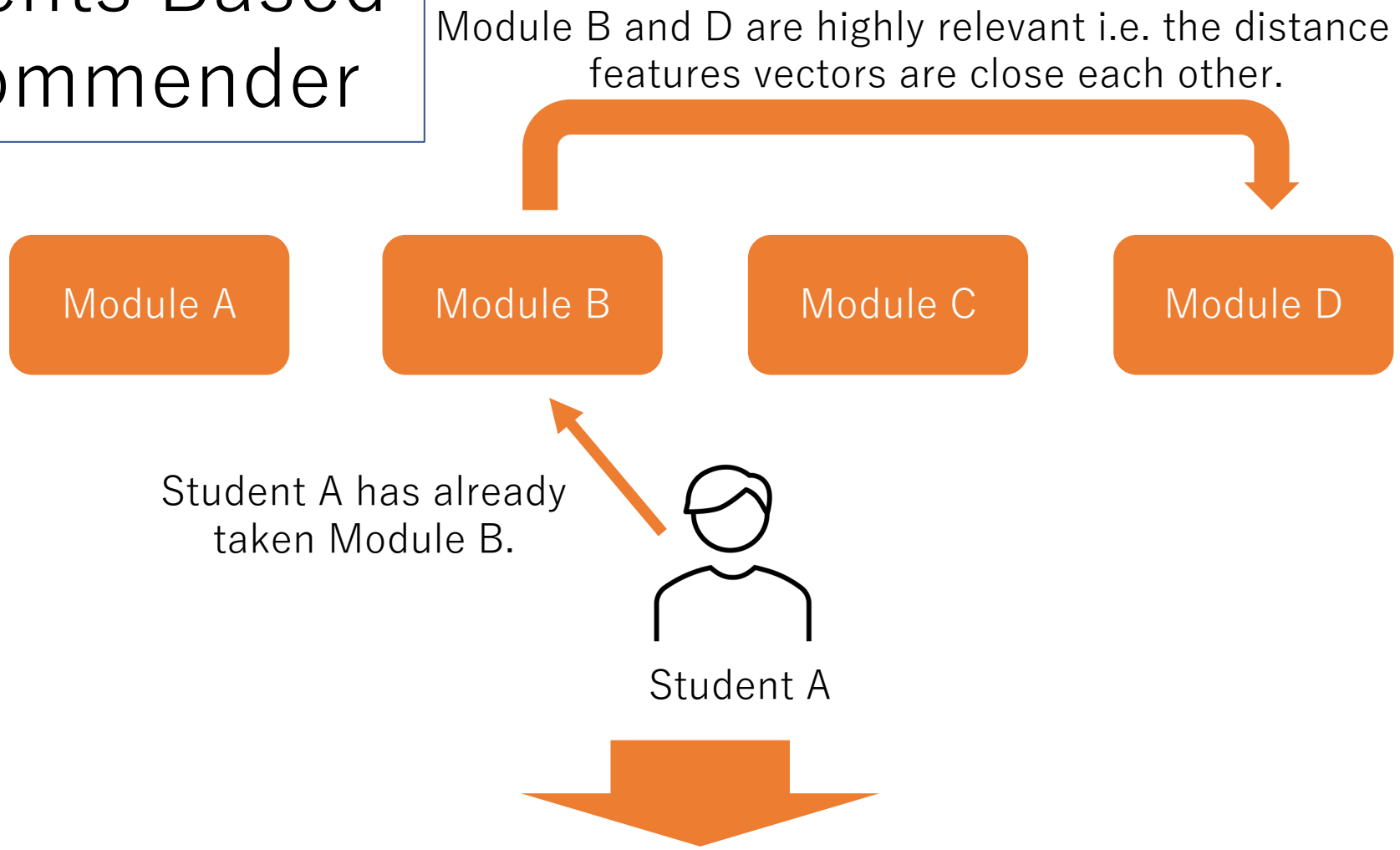
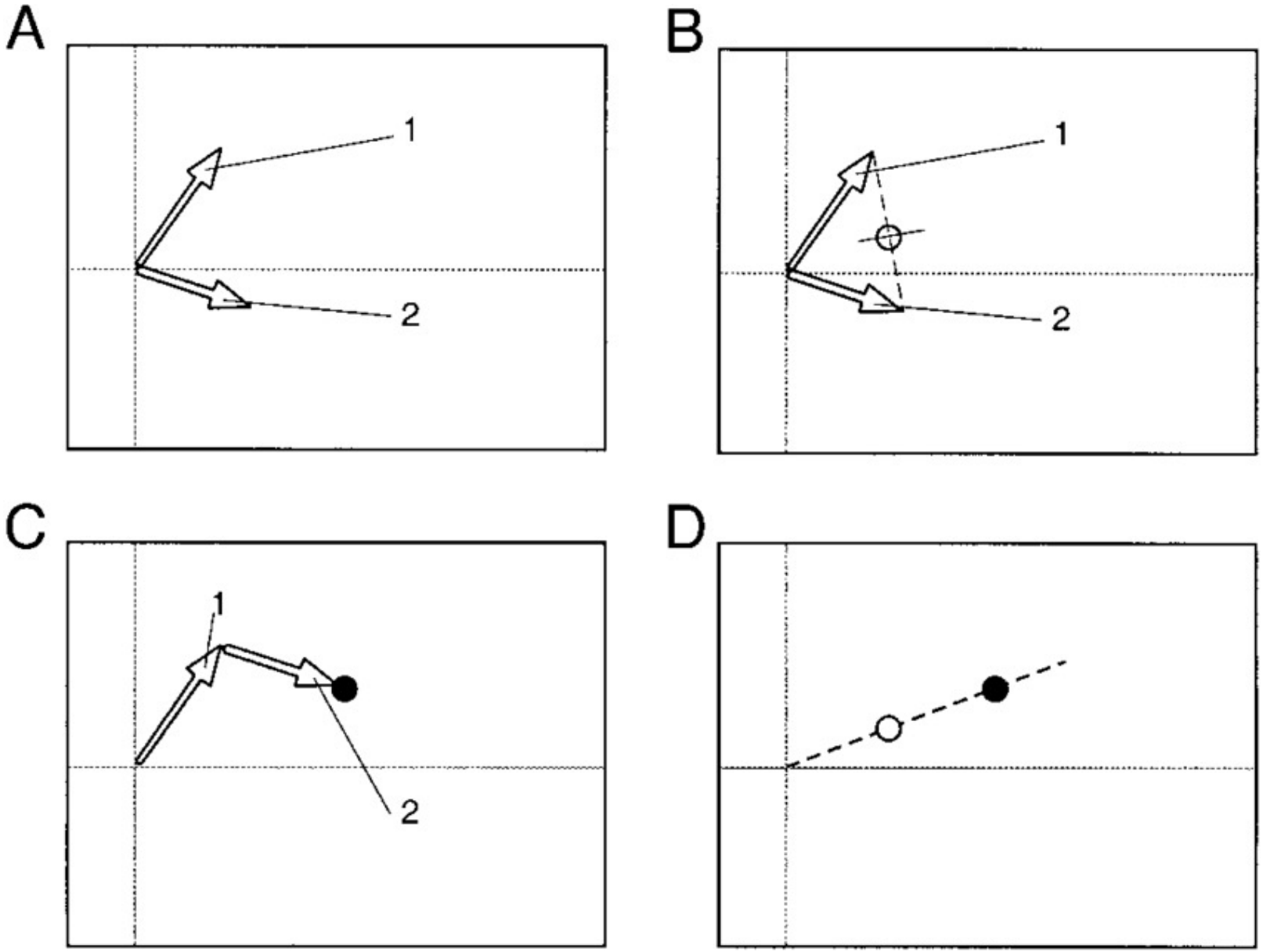
Contents Based Recommender



We recommend module D for student A.

Reference: https://www.researchgate.net/figure/Computation-of-vector-sum-and-vector-average-A-single-vectors-the-same-ones-as-in-the_fig5_7122829



Reference: Ilya Katsov, Introduction to Algorithmic Marketing: Artificial Intelligence for Marketing Operations, 2017, p284
https://www.amazon.com/dp/0692142606/ref=cm_sw_em_r_mt_dp_H3TGT5A9MEEPRZ7CQZ20

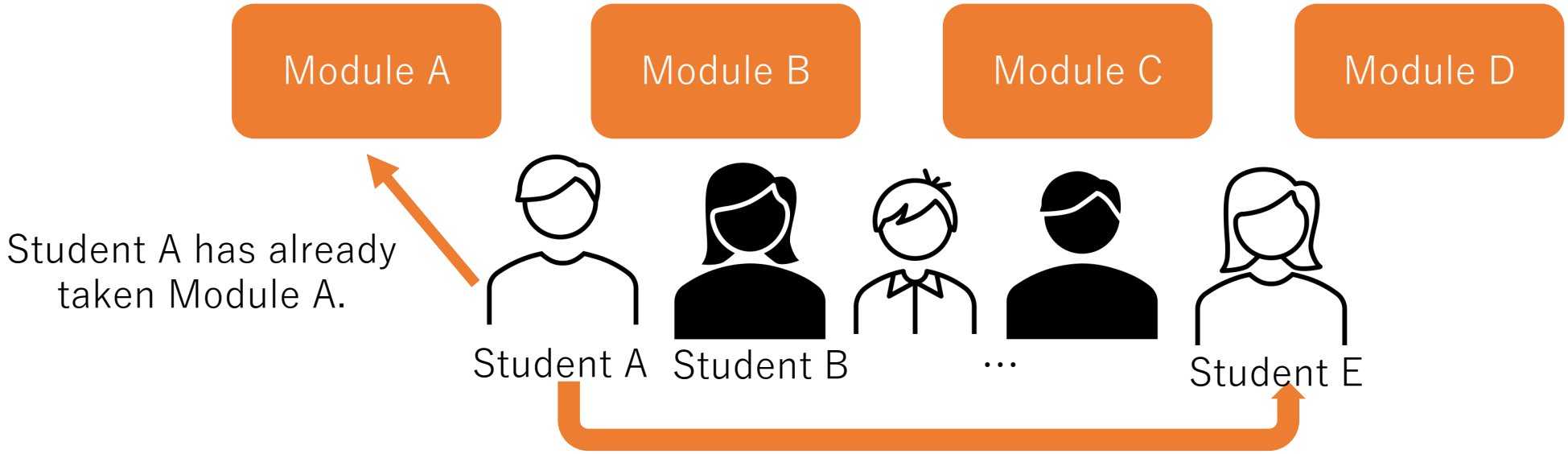
5.3.2 *Ranking Accuracy*

To measure the quality of the top K recommendations, we can leverage the large set of methods and metrics that we developed for search services. First, we should note that the concepts of precision and recall are directly applicable to the top K recommendations problem. If I_u is the subset of items in test set T that is positively rated (e. g., purchased) by user u and $Y_u(K)$ is the list of top K items recommended to that user, we can define the precision and recall metrics as functions of K:

$$\text{precision}(K) = \frac{|Y_u(K) \cap I_u|}{|Y_u(K)|} \tag{5.8}$$

$$\text{recall}(K) = \frac{|Y_u(K) \cap I_u|}{|I_u|} \tag{5.9}$$

User Based Recommender



Student A and E has similar tastes in past module choices i.e. the distance of features vectors are close each other.

We recommend module A for student E.