In these example, X, Y, and Z could each be binary variables, taking on values of either 0 or 1, indicating the presence or absence of the respective features.

X: Type of workout routine (or exercise)

Y: Physical fitness level (health)

Z: Muscle growth (fitness)

U: Genes (unobserved confounder)

The causal inference relationship would be: Doing a certain type of workout routine (X) can impact muscle growth (Z), which affects physical fitness level (Y). However, genes (U) also play a role in both the workout routine choice and physical fitness level, and is also linked to muscle growth, but are not measured in the data.

X: Type of study technique (study)

Y: Exam performance (pass)

Z: Learning retention (learning)

U: Learning motivation (unobserved confounder) (motivation)

The causal inference relationship would be: Using a certain type of study technique (X) can impact learning retention (Z), which affects exam performance (Y). However, learning motivation (U) also plays a role in both the study technique choice and exam performance, and is also linked to learning retention, but is not measured in the data.

People with higher levels of learning motivation might be more likely to choose certain types of study techniques and also perform better on exams.

It is important to note that the relationship between U, X, Y, and Z could be more complex in reality and this simple causal model may not capture all the relationships at play. The goal of this example was to illustrate one possible causal relationship between these variables, not to provide a complete and fully accurate picture of the relationships at play