Table 3. Excerpts from student writing

Student 5 – Argumentative Essay	"In a scenario with 0% elasticity and the same ball masses and initial velocity relationship as the previous scenario, the same outcome occurs for the momentum of the system as the previous scenario. Hence, we know that elasticity does not change the total change in momentum of the system."
Student 6 – Argumentative Essay	"Applying these concepts with data from a simulation will provide evidence for the argument that momentum is conserved in collisions. Simulations were run that involved two balls hitting each other, in both elastic and inelastic conditions with varying masses and velocities."
Student 7 – Creative Story	"From this observation, Lilbeth learned that losing weight and gaining muscle will not easily make her faster because of inelastic water collision. Whenever water collides and stays on her body, she feels more tired because her kinetic energy is not being conserved."
Student 8 – Creative Story	"R-Op 03: Oh, I see! So we would have to treat the ground and the ball as an isolated system, and keep friction out of the equation since it is a nonconservative force. Log: Correct! If friction were present, then some momentum would be lost as heat and would not be conserved. R-Op 03: Okay, so that Lambda researcher's energy was lost as heat after the collision. Is that usually what happens?"
Student 9 – Safety Letter to Company	"If we can predict the worst possible impact a player can experience, we can design appropriate protective wear that will prevent them from health repercussions, while still allowing them to play. It is important to know the impulse in order to see the overall conservation of momentum."
Student 10 – Safety Letter to Company	"If we change the velocity of one of these two objects (cars), we can change its momentum, and alter the severity of the impact. Our design, the inflatable doorbag, will decrease the net momentum in the direction of the car that is being impacted, like Sarah's Jeep."