54. The initial rotational inertia of the system is $I_i = I_{\text{disk}} + I_{\text{student}}$ where $I_{\text{disk}} = 300$ kg·m^2 (which, incidentally, does agree with Table 11-2(c)) and $I_{\text{student}} = mR^2$ where $m = 60$ kg and $R = 2.0$ m. The rotational inertia when the student reaches $r = 0.5$ m is $I_f = I_{\text{disk}} + mr^2$. Angular momentum conservation leads to

$$I_i\omega_i = I_f\omega_f \quad \Longrightarrow \quad \omega_f = \omega_i \frac{I_{\text{disk}} + mR^2}{I_{\text{disk}} + mr^2}$$

which yields, for $\omega_i = 1.5$ rad/s, a final angular velocity of $\omega_f = 2.6$ rad/s.