

Geoscience Academic Provenance Series

Geoscience 'Pipeline' versus 'Pathway' Model

Recruitment and retention discussions about the 'pipeline model' have been circulating through the STEM community for years, with a primary focus on attrition rates (termed 'leaks'). However, the pipeline model is not conducive for understanding variations in students' experiences, behaviors and decisions when pursuing their academic and professional careers. Houlton (2010) developed a 'pathway model' which identified reasons why students decided to pursue the major and may explain attrition rates in the geoscience discipline.

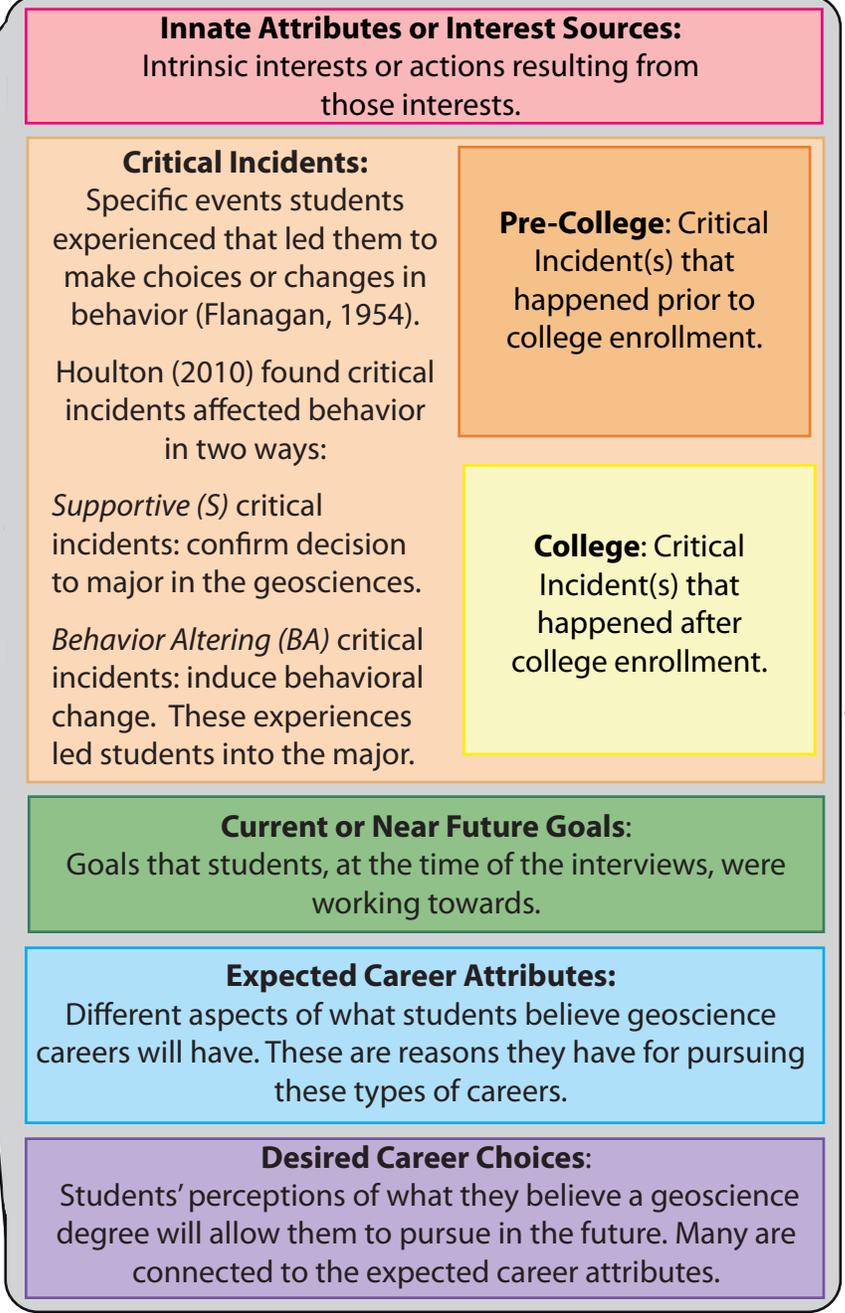
Pathway Steps

- Innate Attributes/Interest Sources
- Pre-College Critical Incidents
- College Critical Incidents
- Current or Near Future Goals
- Expected Career Attributes
- Desired Career Choices

This model explicitly maps students' career trajectories starting from initial interest through intended career ambitions, which can be used to focus future recruitment and retention efforts. This resulted in 6 distinct, chronological pathway steps.

This is the first of four Geoscience Currents on the topic of Geoscience Academic Provenance. AGI is hosting a **GeoWebinar** to discuss this set of Geoscience Currents on **August 23, 2011 from 1:00-1:30 pm US EDT**. Register at: www.agiweb.org/workforce/webinars.html

To read Houlton's full study, go to: http://www.eas.purdue.edu/riggslab/Houlton_Final_Thesis.pdf



-Heather R. Houlton