Glossary for Session 1: Learner

Memorization and Learning
When information is not committed to long-term memory, students' working memory has duration and capacity limitations (Sweller, 1994). Students cannot hold random disconnected information in working memory for a long period of time – the new information must connect to information stored in long-term memory. Students require adequate knowledge of how all these facts fit together. "Facts that are placed into a rich structure are easier to remember than isolated or disconnected ones" (NAS, 2018, p. 50).

Construction-Integration Model: Comprehension and Learning
"When we read, we use our knowledge along with our perceptions of what we think the text says to literally build, or construct, mental representations of what the text means. Once those representations are constructed, we can merge, or integrate, the information in those models with the knowledge stored in our minds. When we achieve that integration, we call it learning; we literally know more than we did before the reading" (Duke et al., 2011, p. 53.
>   **Surface representation** – exact wording
>   **Text-based representation** – what the text says – meanings of words and clauses
>   **Situation model** – what the text means or the state of affairs described in a text beyond the text itself; prior knowledge is needed.

Transfer: Transfer is the students' ability to "treat" a new concept, problem, or phenomenon as similar to one(s) experienced before. Transfer can also consist of two sets of processes: *Initial learning* followed by *reusing* or *applying what was learned*.

Relevance: Information can be applied to personal interests, contexts, or cultural experiences of students (personal relevance). Information can be connected to real-world issues, problems, and contexts (life relevance). Teachers can set learning goals and guide students' attention to relevant information