17 - Science Teaching at the University Level | Empirical

SP - (16420) - ANALAZYING BIOCHEMISTRY KNOWLEDGE TEACHING THROUGH LEGITIMATION CODE THEORY

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Short Abstract

Biochemistry is a discipline that presents a great deal of challenges and it is easy to include chaos and confusion in learning. Also, in most curricula biochemistry is taught in the first year of a course as a traditional classroom participant structures where the teacher does most of the talking. Although there are alternative teaching approaches, neither of them focuses on how disciplinary knowledge is built in the classroom, and this facet remains underexplored. In order to explore this facet, we used the Semantic Density of LCT, which provides a conceptual toolkit and analytical methodology. Using a translation device that we elaborated for Biochemistry, which includes five levels where each level adds complexity to the semantic density with the passage from the observable macroscopic world to the unobservable submicroscopic world and then to representational. Our data suggests that its teaching presents a level of structuring of knowledge normally seen only in scientific articles in the field and is failing to integrate empirical phenomenon into the knowledge structure. We began to unravel certain patterns that permeate biochemistry teaching and this methodology will allow a more reliable analysis of how the biochemistry knowledge is built.