Structural System Property: $_{atis}$Wholeness

(Structural system properties are those properties that are part of the theory and describe patterns of system and negasystem connectedness. The structural properties define the topology of the system, and every affect relation defines a topology on the system.)

Wholeness, $_W\mathbb{S}$, $=_{df}$ a *partition*, $\mathcal{Y} = (V \subset \mathcal{G}_0, \mathcal{R} \subset \mathcal{G}_\mathcal{A})$, characterized by non-primary-initiating components incident to affect-relations that are incident to all other non-primary-initiating components.
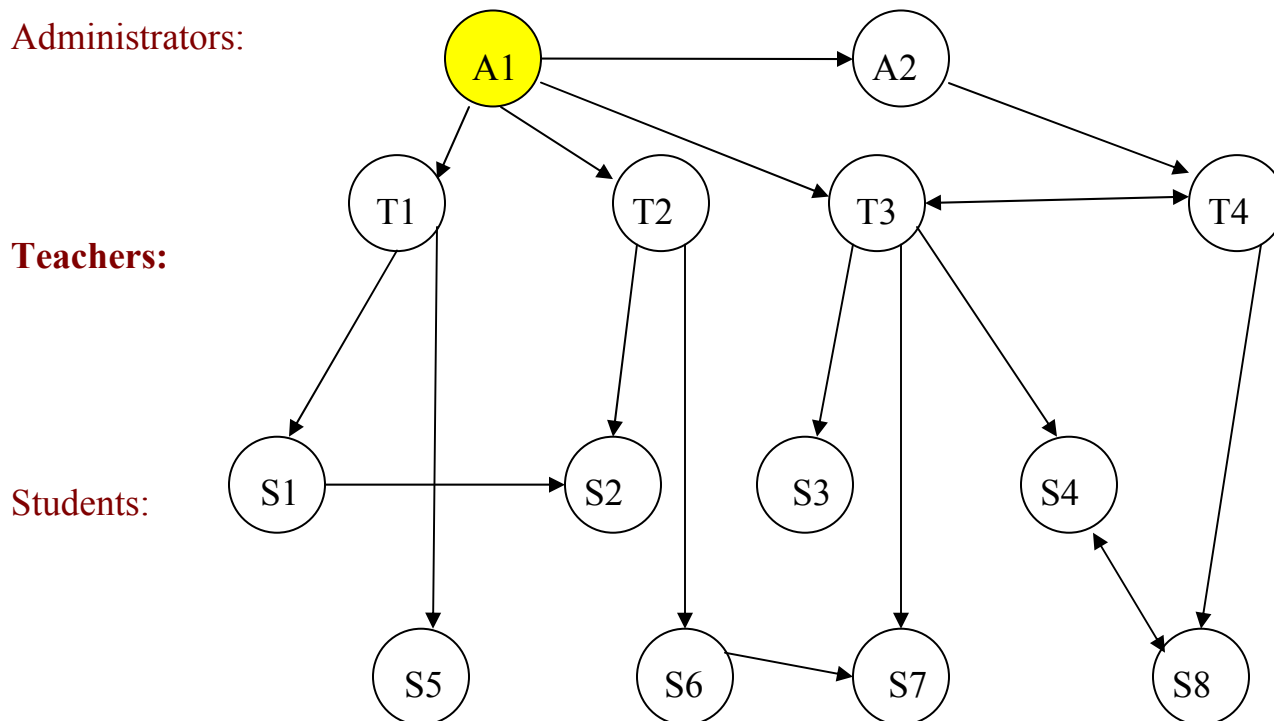
$$_W\mathbb{S} =_{df} \mathcal{Y} \mid \forall \mathbf{u},\mathbf{v} \in \mathcal{Y}(V) \exists \mathbf{e} \in \mathcal{Y}(\mathcal{R})[\mathbf{e} = (\mathbf{u},\mathbf{v}) \supset \mathbf{u} \in _{\sim PI}\mathbf{E} \wedge \mathbf{v} \in _{\sim PI}\mathbf{E}]$$

$\mathcal{M}$: **Wholeness measure**, $\mathcal{M}(_W\mathcal{A})$, $=_{df}$ a measure of non-primary-initiating-components that are connected to all other non-primary-initiating-components.

$$\mathcal{M}(_W\mathbb{S}) =_{df} \left\{\left[\textstyle\sum_{i=1,\ldots,n}(\sum_{j=1,\ldots,m}[|d_{\sim PI}(\mathbf{u}) \mid \mathbf{e} = (\mathbf{u},\mathbf{v}) \supset \mathbf{u} \in _{\sim PI}\mathbf{E} \wedge \mathbf{v} \in _{\sim PI}\mathbf{E} \mid \div |W(\mathbf{v})|]_j)_i\right] \div \mathbf{C}\right\} \times 100;$$
Where $W(\mathbf{v})$ are the wholly-connected components, and $|W(\mathbf{v}) = 0| = 1$.

Wholeness in a School System

Administrators:

Teachers:

Students:

Affect Relation: *Controls Activities of*
In this system, there is 1 component that *Controls Activities of* other components with respect to *Wholeness*. Since there is only 1 affect-relation and 14 components, then the total possible affect relation paths is $P[\mathcal{Z}(\mathbb{S_o})]$ = 236,975,181,590; and therefore, $\mathbf{C} = \log_2(P[\mathcal{Z}(\mathbb{S_o})]) \approx 37$. The product of the component degrees not including the wholly-connected component is 17,280, with a $\log_2|17,280| \approx 14$. There are 14 paths related to *Independentness*.

Therefore: $\mathcal{M}(_w\mathbb{S}) \approx 36.85.$