TABLE II. Number of games per minute, by predominant group dynamic and by driving learning orientation, for the F15 class. Number of total groups is in parentheses for each cell. "Other" refers to groups being driven by students with no recorded orientation.

		Learning orientation driving group progress				
		F	P	V	Other	All
Predominant group dynamic	I	-	1.80 (1)	-	1.09 (2)	1.30 (3)
	S	1.59 (2)	0.91 (1)	-	-	1.34 (3)
	C	1.19 (2)	1.38 (3)	1.31 (3)	-	1.29 (8)
	D	1.06 (1)	-	-	-	1.06 (1)
	All	1.29 (5)	1.37 (5)	1.31 (3)	1.09 (2)	1.33 (15)

Table II shows a distribution of games per minute among groups by driving orientation (columns) and by the most common group dynamic (rows) as described in Section IIIA. Examining Table II by group dynamic, it appears that the majority of examined groups were indeed able to collaborate as a team, either in full (C) or at least in part (S). There appears to be only a small effect on overall frequency of epistemic games per minute, either by learning orientation or by choice of group dynamic. Performance-oriented students appear to use slightly more games per minute, while group dynamics do not seem to cause much variance.

Most groups either had a performance- or framework-oriented dominance. The vague-dominated groups all seemed to favor collaboration; this reflects the strong tendency among vague-oriented students to discuss the process of working with partners rather than desired outcome. [2] Framework-dominated groups also tended to favor full or partial collaboration; the group with a dominant dynamic featured a framework-oriented student whose partners were not very strong in course performance.

IV. DISCUSSION

We have demonstrated a potential means of "sampling" audiovisual data of a live laboratory classroom using brief recordings of each laboratory table, in terms of frequency of used epistemic games. This data may in turn be used to cross-reference the driving learning orientation for each group with the predominant group dynamic activity.

The number of games per minute may also provide a preliminary quantitative measure that can link the predominant group dynamic with the learning orientation that drives group progress. While total use of games does not appear to change much by driving learning orientation or predominant group dynamic, future analysis of individual games or of multiple semesters may show further differences.

Future planned analyses include an expansion of Table II to include data for additional semesters, in order to determine whether any significant differences may emerge with a larger sample size. We will also consider choice of individual games in the same vein as all total games were considered in Table II, e.g. whether certain orientations or group dynamics are more favorable for intellectually complex games.

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