

Linking Talk Types to Socioemotional Formation and Regulation

Nikki G. Lobczowski, Kayley Lyons, Jeffrey A. Greene, Jacqueline E. McLaughlin
nikkilob@cmu.edu, kayley.lyons@monash.edu, jagreene@email.unc.edu, jacqui_mclaughlin@unc.edu
The University of North Carolina at Chapel Hill

Abstract: Social discourse is an important element of collaborative learning. In this study, we qualitatively analyzed the talk types used by groups of graduate pharmacy students during a six-week project-based learning assignment. We found 23 different talk types and linked them to the stages of the Formation and Regulation of Emotions in Collaborative Learning model. The use of different talk types influenced the groups' emotions and overall group functioning.

Introduction

In collaborative learning, students often have difficulty engaging in appropriate discourse with their peers (Bielaczyc et al., 2013), which can result in negative peer interactions and subsequent negative emotions that affect learning and encourage maladaptive collaboration habits (Näykki et al., 2014). The rich literature on discourse includes recommendations on how to engage students in discussions that promote collaboration and learning, as well as how different talk types relate to what and how students discuss (Murphy et al., 2016). Talk types are the different kinds of discourse in which students engage during collaborative learning (Sullivan & Wilson, 2015). More research is needed, though, regarding how different talk types manifest in group interactions and link to the formation and regulation of emotions. A better understanding of these relations would assist educators in helping students engage in positive interactions and overall collaboration. Therefore, in this study, we examined the role of talk types in small group learning.

Our work is derived from the theory of the Formation and Regulation of Emotions in Collaborative Learning (FRECL; Lobczowski, 2020). Per this model, groups are situated within a given *context* shaped by the individuals within the group, interactions between group members, and engagement with various components of small group learning (e.g., the task). Then, a *stimulus event* occurs, followed by an *appraisal* (i.e., cognitive representation of motivational constructs) and ultimately an *emotion* (e.g., happiness) and *response* (e.g., frowning). Upon completion of the formation stages (i.e., context, stimulus event, appraisal, and emotional response), the students may engage in regulation (i.e., the fifth stage). This theory highlights the complex nature of emotions in group settings but does not explicitly consider the role of social discourse within each of the stages. As such, we used an exploratory approach to analyze talk turns from mostly unstructured group discussions to qualitatively investigate: (1) *the different talk types student groups used in a project-based learning course* and (2) *how the talk types linked to the formation and regulation of emotions*.

Methods

Our participants included six groups of four to five second-year graduate pharmacy school students ($n = 29$) from the southeastern United States. These students were given a project-based task to create innovative solutions for real-world pharmacy problems. This study is part of a larger project in which we recruited the groups to use an app to rate their emotions during biweekly group meetings. These ratings revealed groups with high, medium, or low levels of positive emotional experiences. We analyzed the conversations from three groups (i.e., one high, medium, and low), which occurred during nine two-hour group meetings, totaling 27 group meetings analyzed.

Part of the larger project included deductively and inductively coding talk turns to develop a scheme to highlight the different types of talk used by the student groups (see Table 1). These codes were influenced by context (e.g., conversations before and after utterances) and observable emotional expressions, as evidenced through body language, facial expressions, and tone (Lobczowski, 2020). Coding from the larger project resulted in over 90% agreement and 100% after reconciliation. To connect the talk types to socioemotional formulation and regulation, we identified themes specifically related to the five stages of the FRECL model.

Table 1: Talk Type Codes

Code	Definition	Examples
Apologizing	Saying sorry for social reasons	"I'm sorry, can you repeat it?"
Calling out	Lightly challenging someone about something they said or did	"That's not what you said before."
Challenging	Engaging in argumentation; debating or negotiating ideas	"I disagree."
Comforting	Providing relief to a group member	"Don't be so hard on yourself!"
Complaining	Discussing tensions, positioning as right or others as wrong	"The professor still hasn't replied."

Complaining about group member	Similar to complaining, but focused on a specific member in the group	"I can't believe Mark is skipping our meeting."
Complimenting	Giving compliments to someone (present) in the group	"I like what you did there."
Confronting	Discussing frustrations about a person in the group	"I can't believe you did that."
Correcting	Pointing out and fixing a mistake from someone else	"Well, actually, that's wrong."
Encouraging	Providing support to someone to engage in task or discussion	"Tim, what did you think?"
Gossiping	Discussing personal facts about others (typically not present)	"Did you hear about Dr. Smith?"
Gushing	Excitedly sharing positive emotions (or their causes)	"I had so much fun this weekend."
Hear me out	Calling for others to pay attention to what they are saying	"Listen up, I've got an idea..."
Hedging	Presenting ideas without taking a firm stance	"I'm open to other ideas."
Help-seeking	Asking for help	"Can you explain this to me?"
Interrupting	Beginning to speak while others are still talking	A student cut someone off.
Joking	Making jokes about someone or something not currently present	"Did you see what he is wearing?"
Joking/teasing about conflict	Making jokes or teasing about conflict among group members	"Maybe that is why we always seem to be fighting!"
Self-deprecating humor	Making fun of oneself or pointing out one's own flaws	"You know me, always saying the wrong thing!"
Storytelling	Telling a story to the other members of the group	"That reminds me of a time..."
Teasing	Making jokes about a person in the group	"What are you wearing?"
Tension relaxation	Easing group tension by joking or teasing	"Well, now you've confused Jon!"
Venting	Discussing frustrations that are outside of their control	"My car broke down again today."

Results and discussion

We observed 23 different talk types during the student group meetings (see Table 1). Next, we were able to connect the talk types to the different stages of the FRECL model. Although each talk type could occur in different stages, some were more salient in certain stages. First, student discourse (e.g., joking, confronting, correcting) shaped the groups' daily interactions, social norms, and perceptions of others' emotional experiences, thus setting the overall tone for the group (i.e., *context*). Next, the talk types (e.g., teasing, challenging) served as *stimulus events*, with occasional verbalizations (e.g., self-deprecating humor) of *appraisals* of the meanings and intentions for the social discourse. Based on these appraisals, the students then *responded emotionally* to the talk types through visual displays (e.g., facial expressions) and verbalizations (e.g., complaining, gushing). Finally, some talk types (e.g., venting, comforting) were used as *regulation* strategies.

Our findings, framed within the FRECL model, highlight the integral role that social discourse plays in the formation and regulation of emotions within collaborative learning settings. The observed talk types elaborate on the currently available literature and offer a coding scheme for deeper analysis of socioemotional interactions. Our findings regarding how talk types relate to the formation and regulation of emotion have implications for future research and practice. For example, educators can monitor student discourse for maladaptive talk types and intervene when needed. Likewise, researchers can develop interventions to promote productive talk types during collaborative learning.

References

- Bielaczyc, K., Kapur, M. & Collins, A. (2013) Cultivating a community of learners in K-12 classrooms. In C. E. Hmelo-Silver, A. M. O'Donnell, C. Chan, & C. A. Chinn (Eds.). *International Handbook of Collaborative Learning*, (pp. 233 – 249). New York, NY: Routledge.
- Lobczowski, N. G. (2020). Bridging the gaps and moving forward: Building a new model for socioemotional formation and regulation. *Educational Psychologist*, 55(2), 53-68.
- Murphy, P. K., Firetto, C. M., Wei, L., Li, M., & Croninger, R. M. V. (2016). What REALLY works: Optimizing classroom discussions to promote comprehension and critical-analytic thinking. *Policy Insights from the Behavioral and Brain Sciences*, 3, 27–35.
- Näykki, P., Järvelä, S., Kirschner, P. A., & Järvenoja, H. (2014). Socio-emotional conflict in collaborative learning—A process-oriented case study in a higher education context. *International Journal of Educational Research*, 68, 1-14.
- Sullivan, F. R., & Wilson, N. C. (2015). Playful talk: Negotiating opportunities to learn in collaborative groups. *Journal of the Learning Sciences*, 24(1), 5-52.

Acknowledgments

This work was supported by a grant from the Eshelman Institute for Innovation at the UNC School of Pharmacy.