Peer evaluation in group projects: Insight into effective student critique and feedback.

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The Games Academy

- Multi-Disciplinary Department
- Students developing both Creative and Technical Skills
- Working both independently and in groups
- Assessments are focused on 'Doing it for real'.

Group Game Development Projects

- Group Game Development Modules across three years undergraduate degree.

- Projects typically lasting 30-weeks.

- Multi-disciplinary teams of artists, programmers, designers, writers

- Typically, teams are made up of 6 to 12 students.

- They follow the Scrum methodology having frequent sprint reviews

- Peer Evaluation activities alternate with sprint reviews

- A staff member acts a supervisor meeting with their teams regularly

Additional Context

- B. Tuckman (1965) Five stage model of team development:
- Forming
- Storming
- Norming
- Performing
- Adjourning

- G. Gibbs (1988) - Reflective Practitioner

Feedback Fruits

Moodle extension

Supports Peer Review & Evaluation

Simple and Intuitive Interface

Allows for easy export of data into a spreadsheet

Peer Evaluation

Peer [evaluation] is the process of having the members of a group judge the extent to which each of their fellow group members has exhibited specified traits, behaviors, or achievements ... [in order to] provide constructive criticism and suggestions to improve weak areas and amplify strengths

Research Question

- To what extent can university students offer insightful commentary on how they collaborate with peers?

Methodology

- Students across all three stages of undergraduate study perform regular peer evaluations

- Student comments and scores were collected.

- Teams peer evaluation scores compared to using Spearman's rho.

- Teams were asked to complete a post module questionnaire

Findings

Spearman's Correlation Analysis Showing the Relationship with Self-Reported Effort and Attainment

	IMPACT	ARBIT	CONSIST	COHERE	REWARD	EASE	PROF	Effort	Attainment
IMPACT	–								
ARBIT	-.259**	–							
CONSIST	-.038	-.244**	–						
COHERE	.312**	-.371**	.028	–					
REWARD	.355**	-.088	.125	.187*	–				
EASE	.279**	-.149	.211*	.078	.214*	–			
PROF	.067	-.032	.086	.235**	.031	.247**	–		
Effort	-.065	.010	.015	.119	.001	.017	-.008	–	
Attainment	.118	−.162*	-.077	.293**	.181*	-.109	.184*	.382**	–

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Student Experience

- Students from larger teams must review more peers
- Students found the fortnightly peer evaluations too frequent
- Students have valuable perspective on their peers
- Students like to feel like their voice is being heard

Heuristics

- The Peer evaluation activities should be consistent across teams
- The process shouldn't be too tiring (Too many students to evaluate or too many questions)
- Remove arbitrary influences from teams

Conclusion

- Students were more successful when the reported having more coherent teams capable of professional dialogue

- Students do require guidance to structure feedback

- Students who found the experience easier tended to have higher levels of professionalism

- Students struggling with arbitrary influences don't perceive value in peer evaluation exercises

Future Work

- In-depth exploration of staff perspectives on peer evaluation

- Refine and further develop how we handle peer evaluation

- Monitor students' perspectives on peer evaluation and our process

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Q&A

- Any Questions?