

# Advancing Interprofessional Education through the BOOST Gamification Model: Enhancing Motivation and Team Performance

## AUTHORS

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## INTRODUCTION & AIMS

- Interprofessional education (IPE) is essential for improving healthcare delivery, but there is often a gap between theoretical models and practical application, affecting effective students' motivation and engagement training for patient-centered care.
- Gamification, which involves adding game elements (e.g., leaderboards) to education, can increase motivation and engagement in learning.
- Despite its many benefits, gamification lacks a theoretical foundation in IPE to support its design and implementation.
- The BOOST gamification model is being developed to enhance student motivation and team performance in IPE settings.
- An experimental study compared the effectiveness of the BOOST model with traditional IPE activities in enhancing the outcomes.



## METHODOLOGY

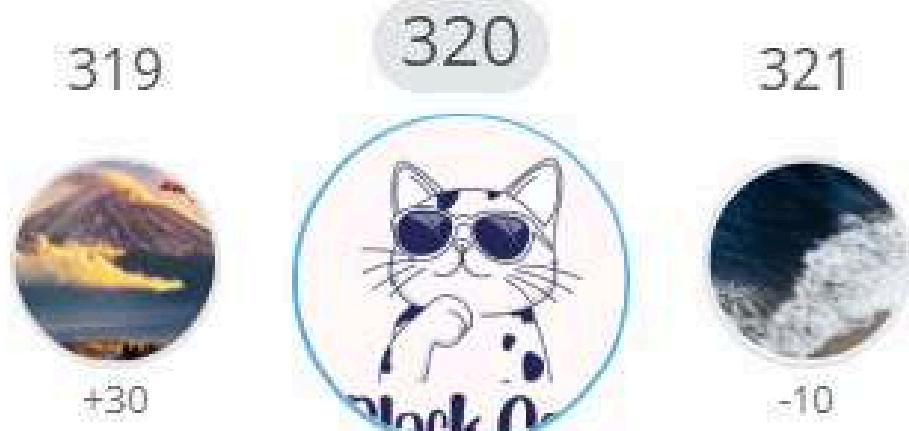
- Participants:** Students from various healthcare disciplines.
- Procedures:** Pre- and post-intervention assessments to measure changes in motivation and team performance. Random assignment of participants into two groups.
  - BOOST Group:** Engaged in IPE activities utilizing the BOOST gamification model.
  - Control Group:** Participated in traditional IPE activities without gamification elements.
- Measures:** Pre- and post-intervention assessments to measure changes in motivation and team performance.
- Data analysis:** Repeated measures ANOVA and ANCOVA to compare the results between the BOOST group and the control group to determine the effectiveness of the BOOST Model.

### Leaderboard

Participate in the course to gain experience points and level up!



### RANKING



### RECENT REWARDS

10XP Course module viewed	Jan 21
10XP Course module viewed	Jan 21
10XP Course viewed	Jan 21

### MODULE0125 IPE Tier 2 Dementia [2024]

Course	Settings	Participants	Grades	Reports	More
Gamified Interprofessional Education					
IPE Briefing					
Welcome information					
Part 1 - Preparation					
Part 2 - Readiness Assurance and Application Exercise					
Part 3 - Enrichment Activity					

### Team leaderboard

The team leaderboard is a ranking of teams based on their members' points

Rank	Team name	Points
1	Team 5	7,070
2	Team 11	6,760
3	Team 12	6,180
4	Team 10	6,170
5	Team 1	5,970
5	Team 6	5,970
7	Team 9	5,910
8	Team 2	5,710
9	Team 16	5,570
10	Team 14	5,550

## RESULTS

- Preliminary ANOVA findings suggest that students exposed to the BOOST model showed significantly higher intrinsic motivation and enhanced team performance compared to those in the control group.
- ANOVA results indicate that students in the two groups exhibited different levels of improvement in motivation and team performance over time.
- Follow-up ANCOVA results show differences in post-test motivation and team performance, accounting for pre-test scores as covariates.

## KEY TAKE-AWAYS

- The BOOST gamification model can improve student motivation and team performance in IPE context.
- Future studies should investigate additional applications of the BOOST model and its long-term effects on healthcare delivery outcomes stemming from IPE.
- The BOOST model should be implemented in various collaborative learning environments to confirm its acceptability and effectiveness.

Variables	Groups	N	Mean (SD)		Time × group interaction Effect	
			Pre-test	Post-test	F	Effect size ( $\eta^2$ )
Autonomy	EG	95	5.00 (.79)	5.66 (.69)	4.22*	.02
	CG	97	4.84 (.80)	5.24 (.78)		
Competence	EG	95	4.48 (.69)	5.23 (.77)	6.35*	.03
	CG	97	4.36 (.60)	4.83 (.84)		
Relatedness	EG	95	4.71 (.69)	5.45 (.69)	6.42*	.03
	CG	97	4.56 (.66)	5.01 (.85)		
Team effectiveness	EG	95	3.60 (.68)	4.26 (.50)	5.80*	.03
	CG	97	3.56 (.63)	3.95 (.57)		
Collective efficacy	EG	95	3.58 (.72)	3.82 (.67)	1.48	.01
	CG	97	3.51 (.75)	4.02 (.62)		

Variables	Groups	N	Adjusted Mean	F	Effect size ( $\eta^2$ )
Autonomy	EG	95	5.63	13.08***	.07
	CG	97	5.27		
Competence	EG	95	5.19	9.86**	.05
	CG	97	4.87		
Relatedness	EG	95	5.41	12.77***	.06
	CG	97	5.05		
Team effectiveness	EG	95	4.25	15.49***	.08
	CG	97	3.95		