

Investigating the Linkage between Intrinsic Motivation and Project Team Satisfaction in Undergraduate Agricultural Leadership Students

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Abstract

Organizations have increased the amount of work that is completed by project teams over the past several decades. This trend is projected to continue into the foreseeable future. In response to this trend, the academic community has increased the number of project team based learning experiences for students in classes. The challenge has been that students do not always enjoy team projects; frequently students express a lack of satisfaction with the project as well as the project team. The aim of this research is to empower agricultural education faculty to make better pedagogical decisions regarding agricultural leadership student project teams based on student intrinsic motivation leading to increased team satisfaction. No empirical research exists evaluating the importance of individual intrinsic motivation on project team satisfaction within an academic agricultural leadership setting. The purpose of this study was to examine how undergraduate agricultural leadership students' intrinsic motivation to complete a project influenced their project team satisfaction. Intrinsic motivation explained 49% of the variance in project team satisfaction scores. An implication of this finding is that to improve levels of satisfaction it is important to ensure the project is personally meaningful to the individual, thus increasing their intrinsic motivation.

Group or team based work and interpersonal work situations are rapidly increasing (Robbins & Judge, 2009). Currently the use of teams within organizations is ubiquitous and this trend is only expected to increase into the future; it is only the organization that does not use teams that is the exception (Robbins & Judge, 2009). Employers consistently rank the ability to work with others and teamwork skills among the top five employee qualities (Espey, 2010). Consequently it is important that agricultural educators provide team-based educational approaches and help to ensure that students maintain a positive attitude toward teamwork (Lancellotti & Boyd, 2008).

Agricultural leadership education and team related skills development are complementary disciplines (Kouzes & Posner, 2010). In fact, Kouzes and Posner (2010) suggested “build your own and your team members’ abilities to work with each other. Doing this well will have a direct impact on your personal and organizational success” (p. 64). Leadership, in its very definition is inextricably intertwined with working with others; Northouse (2013) defined leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 5).

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Undergraduate agricultural leadership education represents a unique, and appropriate, context in which to study team related outcomes (Micari, Gould, & Lainez, 2010).

Although there are strong indicators that project team learning is already employed, there are also indications that such educational approaches are not always with the most positive response from learners (Burdett & Hastie, 2009). Frequently students do not view group, or team based, projects positively (Espey, 2010). Reasons for disliking project teams included bad experiences in the past, social loafing, overly dominant personalities, apathy, or conflict (Espey, 2010). Nonetheless, team satisfaction has also been shown to lead to higher levels performance. For example, Springer, Stanne, and Donovan (1999) found performance and satisfaction to be related based on their meta-analysis of group based learning.

Motivating students has been the focus of numerous studies (e.g. Aarnio, Nieminen, Pyörälä, & Lindblom-Ylänne, 2010; Kember, Ho, & Hong, 2008; Turner & Herren, 1997); however, there is limited empirical research that specifically examines how undergraduate leadership student intrinsic motivation is related to project team satisfaction.

Effective and efficient educational programs are one of the priority areas of the National Research Agenda: American Association for Agricultural Education 2011 – 2015 (Doerfert, 2011). To continue to be relevant, agricultural educators must be nimble and responsive to these trends. This includes providing appropriate educational programming to diverse audiences and learners (Doerfert, 2011).

Theoretical Framework

The theoretical framework for this study is based on the theory of intrinsic motivation (IM) in academic settings proposed by Elliot and Church (1997). There are a number of definitions of IM; however, for the purposes of this study IM in academic settings was determined to be most appropriate. According to Deci (1971), someone “is intrinsically motivated to perform an activity when one receives no apparent reward except the activity itself” (p. 105). In an agricultural education or classroom context “intrinsically motivated students want to learn because they are curious, seek knowledge, are interested in self-improvement, and learning gives them satisfaction” (Buckmaster & Carroll, 2009, p. 53).

Biologically IM is the internal catalyst that drives the need for knowledge and skill attainment that are only beneficial at some future time (Baldassarre, 2011). In this regard IM is unique and distinct from extrinsic motivation (EM) (Deci, 1971). While both IM and EM are experienced by the individual through external stimuli the motivation process is different. Extrinsic motivation tends to be focused on tangible rewards, results, and immediate outcomes whereas IM tends to be focused on the learning process and potential future benefits (Baldassarre, 2011).

In an agricultural education environment extrinsic motivation in the form of grades have been shown to be related to EM; however, undergraduate students have been found to have higher levels of IM when they are encouraged to develop mastery, or self-directed goals (Elliot & Church, 1997). Based on the literature there was strong support for the position that IM is a unique and measurable process experienced by individuals and that IM is conceptually unique and measurably different from EM (e.g. Baldassarre, 2011; Deci, 1971; Elliot & Church, 1997).

Intrinsic motivation has been shown to be malleable at any given moment based on an individual’s state (Deci, 1971). This state level of IM has been shown to be conceptually unique from an individual’s predisposition towards trait levels of IM or EM (Baldassarre, 2011). Regardless of predisposition, whether IM or EM oriented in general, IM has been shown to be influenced by proximal events (Deci, Koestner, & Ryan, 1999). For example, studies have shown that antecedent events, such as teacher intervention, can have a direct and significant impact on student IM (Deci, et al., 1999).

High levels of IM in undergraduate students have been found to be positively related to performance and satisfaction on an individual task, even when the students’ performance was

experimentally constrained (Freedman & Phillips, 1985). To the contrary, IM has been found to be negatively affected under conditions where individuals felt as though they were being monitored closely (Enzle & Anderson, 1993) or when tangible rewards were provided (Deci et al., 1999). The flexibility of state levels of IM has been well established within the literature (e.g. Enzle & Anderson, 1993; Deci et al., 1999).

Teacher interactions that have been shown to directly improve student IM have included encouraging students to see the fun in the intended goal (Csikszentmihalyi, 1990) or providing verbal rewards for goal achievement (Deci, et al., 1999). When IM is increased positive individual and organizational outcomes have been observed. For example, Antoni (2009) found that IM was positively related to increased social capital formation amongst organizational members; additionally, organizations benefited through increased membership participation when members joined for intrinsically motivated reasons. Oudejans (2007) found that IM was positively predictive of job satisfaction for individuals employed in public and private sectors. Benefits of increased levels of IM for individuals (e.g. Antoni, 2009; Oudejans, 2007; Williams & Deci, 1996); and organizations (e.g. Antoni, 2009; Gagne & Deci, 2005) have been examined; however, there is a lack of research examining how IM interacts with team satisfaction in undergraduate agricultural leadership students.

The trend toward project teams in educational settings is based on a number of readily observable trends in the workplace (Burdett & Hastie, 2009; Robbins & Judge, 2009). Teams have been shown to be very positive within organizations. For example, Emery and Barker (2007) found team structures increased productivity and net profit. When aggregated, higher team satisfaction scores led to increased team performance (Lancellotti & Boyd, 2008). However, there are also studies that have found that teams can have a negative effect. For example, Robinson and Kraatz (1998) reported that individuals tended to engage in deviant workplace behaviors, such as lying, more frequently in a group setting when the group norm permitted such behavior. The relative anonymity of groups enabled behaviors that would have been avoided by individuals that would ordinarily be afraid of being caught (Robbins & Judge, 2009).

Project team assignments within agricultural education settings represent a challenge and opportunity to prepare students for the workforce (Burdett & Hastie, 2009). For example, Almond (2009) found that participating in group work encouraged students to develop interpersonal, communication, and collective decision making skills. However, project team assignments have also been shown to have negative effects, for example, dissatisfaction leading to lower performance (Freeman, 1996), lower group scores for high performing individuals (Almond, 2009), or difficulties in organizing leading to frustration (Livingstone & Lynch, 2000). According to Freeman (1996), "students who felt group work was an integral part of the learning experience probably made the most of the opportunity to engage in group interaction and to use others' contributions to enhance their own understanding of the subject matter" (p. 279). Furthermore, Livingstone and Lynch (2000) found that teacher intervention and particular attention to team project work resulted in higher levels of achievement and satisfaction among undergraduate students.

Purpose and Research Questions

The purpose of this study was to examine how undergraduate agricultural leadership students' intrinsic motivation to complete a project influenced their project team satisfaction. The study was driven by the following research objectives:

1. Describe the levels of intrinsic motivation in undergraduate agricultural leadership students.
2. Describe the levels of project team satisfaction in undergraduate agricultural leadership students.

3. Identify the relationship between intrinsic motivation and project based team satisfaction in undergraduate agricultural leadership students.
4. Identify how intrinsic motivation predicts project based team satisfaction in undergraduate agricultural leadership students.

Methods

The population for this study was undergraduate agricultural leadership students. A census of two classes of undergraduate agricultural leadership students in a single southern land grant university was included in the study. Data from the first class were collected in the fall of 2012; data from the second class were collected in the spring of 2013. Multiple classes were studied to ensure results would be generalizable to a broader audience (Ary, Jacobs, & Sorensen, 2010). The first class had 32 students enrolled; the researchers received a 100% response rate. The second class had 35 students enrolled; the researchers received a 100% response rate. There were a total of 67 completed questionnaires included in the study.

Demographic data were obtained through respondent self-report. The sample was 35.8% ($n = 24$, coded as 1) male and 64.2% ($n = 43$, coded as 2) female. The average age of respondents was 22 ($M = 22.2$, $SD = 4.6$) with a range of ages between 19 and 47. Respondents represented all undergraduate classifications within the university, 1.5% ($n = 1$) freshman, 11.9% ($n = 8$) sophomore, 31.3% ($n = 21$) junior, 52.2% ($n = 35$) senior, 3.0% ($n = 2$) of respondents did not provide classification information.

For the purposes of the study student race and ethnicity were defined as self-perceived membership in population groups that define themselves by cultural heritage, language, physical appearance, behavior, or other characteristics ("Standards", 1995, p. 26). In this study, race was defined as: American Indian or Alaska native; Asian or Pacific Islander; Black or African American; White; or Other. Ethnicity was defined as either Hispanic/Latino(a)/Chicano(a) or not. These categories were based on United States of America Office of Management and Budget standards for the classification of Federal Data on Race and Ethnicity ("Standards", 1995, p. 29). From an ethnicity perspective 17.9% ($n = 12$, coded as 1) of respondents identified themselves as Hispanic/Latino(a)/Chicano(a). In regard to respondents' race, 85.1% ($n = 57$) identified themselves as White, 4.5% ($n = 3$) identified themselves as Black or African American, 3.0% ($n = 2$) identified themselves as American Indian or Alaska native, 1.5% ($n = 1$) identified themselves as Asian or Pacific Islander. Due to the limited number of individuals in non-White race categories subsequent analysis of race was based on whether an individual classified themselves as either White (coded as 1) or non-White (coded as 0).

During the course participants were assigned to project team by the course instructor. The team project consisted of a group determined philanthropic activity, a group presentation, and a final group report. The team project lasted the duration of the course. At the conclusion of the course participants were surveyed. Participants were not informed of the research or researcher intent to conduct a study during the course. Respondents received no compensation or course credit for participating in the study.

A paper-based questionnaire was used to collect participant responses. The questionnaire was developed by combining previously developed, valid and reliable instruments. The use of previously established measures increases data validity and reliability (Ary et al., 2010). The questionnaire was reviewed by a panel of experts knowledgeable in survey design and undergraduate instruction for validity prior to administration.

Participants self-reported their intrinsic motivation in completing the project using a researcher adapted measure developed by Elliot and Church (1997). The original measure included eight items and was directed at intrinsic motivation toward a personality psychology class. The researcher modified the questions to be project focused. Additionally an item asking participants' if they were enjoying the class was omitted; the item was not relevant because the project was

completed when participants responded to the questionnaire. Consequently seven items were used to assess participants' intrinsic motivation toward their project: "I think my project was interesting," "I think pursuing this project was a waste of my time" (reverse scored), "I think my project was fun," "I think my project was boring" (reverse scored), "I'm glad I picked this project," "I don't like the project I selected" (reverse scored), "I intend to tell others about my project." . Individuals indicated their response on a five-point, Likert-type scale. Possible responses to each item included: 1 – *Strongly Disagree*, 2 – *Disagree*, 3 – *Neutral*, 4 – *Agree*, 5 – *Strongly Agree*. Responses to the seven items were averaged to create an overall intrinsic motivation index score. *Ex post facto* reliability was calculated on the intrinsic motivation construct a Cronbach's α of .90 was obtained.

Participants self-reported their level of project team satisfaction using a researcher adapted measure developed by Judge, Boudreau, and Bretz (1994). The original measure was developed to assess male executives' job satisfaction and was found to have a Cronbach's α of .85. The measure includes three items. The first item asked respondents to indicate if they were satisfied with their project team by responding *yes* (coded as a 1) or *no* (coded as a 0). The second item asked respondents to indicate how they felt about their project team in general using a seven place circular face satisfaction series originally developed by Kunin (1955). The seven items were coded from 1 = *least satisfied* to 7 = *most satisfied*. Finally, participants reported the percentage of time that they were satisfied with their project team on average; available responses ranged from 0% to 100%. A project based satisfaction index score was calculated by multiplying each of the three items. For example, an individual that indicated that they were satisfied with the project team on the first question was coded as a 1, if the individual then selected the face representing the most satisfied state the second question was coded as a 7, in the final question if the individual indicated that they were satisfied with their project team 95% of the time this was used as the final value. The index calculation would then be $1 \times 7 \times .95$ or 6.65.

Results

Intrinsic Motivation

Levels of intrinsic motivation in undergraduate agricultural leadership students were calculated using the Elliot and Church (1997) scoring key. Intrinsic motivation scale scores are based on a 1 to 5 scale. The intrinsic motivation scale index had a minimum score of 2.29 and maximum score of 5.00 ($M = 4.30$, $SD = .62$). Table 1 displays participants' level of intrinsic motivation.

Team Satisfaction

Levels of project team satisfaction in undergraduate agricultural leadership students were calculated using the Judge, Boudreau, and Bretz (1994) scoring key. Project team satisfaction scale scores are based on a 0 to 7 range. The project team satisfaction scale index had a minimum score of 0 and maximum score of 7.00 ($M = 5.66$, $SD = 1.74$). Table 2 displays frequency of respondents based on satisfaction with their project team, 4.5% ($n = 3$) of individuals were not satisfied with their project team. Table 3 displays frequency of respondents feeling toward their project team. Individuals' feeling toward their project team had a minimum score of 3 and a maximum score of 7 ($M = 6.31$, $SD = 1.00$). Respondents indicated the percentage of time that they were satisfied with their project team. Percentage of time satisfied ranged from a minimum of 15% to a maximum of 100% ($M = 90.04\%$, $SD = 13.70\%$).

Table 1

Participant-Perceived Level of Intrinsic Motivation by Percentage of Respondents

<i>Statements</i>	<i>n</i>	<i>Strongly Disagree %</i>	<i>Disagree %</i>	<i>Neither Agree or Disagree %</i>	<i>Agree %</i>	<i>Strongly Agree %</i>
I think pursuing this project was a waste of my time. (RC)	67	0.00	0.00	5.97	28.36	65.67
I think my project was boring. (RC)	66	0.00	4.55	6.06	31.82	57.58
I don't like the project I selected. (RC)	67	1.49	4.48	7.46	29.85	56.72
I think my project was fun.	67	0.00	2.99	10.45	40.30	46.27
I think my project was interesting.	67	0.00	1.49	8.96	46.27	43.28
I'm glad I picked this project.	67	0.00	1.49	14.93	43.28	40.30
I intend to tell others about my project.	66	0.00	10.61	18.18	40.91	30.30

Note. RC = Reverse Coded

Table 2

Number of Respondents by Satisfaction With Project Team

<i>Satisfied with Project team</i>	<i>f</i>	<i>%</i>
No	3	4.50
Yes	64	95.50
Total	67	100.00

Table 3

Number of Respondents by Feeling About Project Team

<i>Feeling about Project Team</i>	<i>f</i>	<i>%</i>
Very Dissatisfied	0	0.00
Dissatisfied	0	0.00
Somewhat Dissatisfied	2	3.00
Neutral	1	1.50
Somewhat Satisfied	11	16.40
Satisfied	13	19.40
Very Satisfied	40	59.70
Total	67	100.00

Relationships between Intrinsic Motivation and Project Team Satisfaction

Pearson product-moment correlations between intrinsic motivation, project team satisfaction, age, gender, undergraduate classification, ethnicity, and race were completed to illuminate the nature of the relationship between variables. Correlation coefficients and statistical significance between variables are provided in Table 4. Correlations ranged from negligible to very strong in magnitude (Davis, 1971). Intrinsic motivation had a positive very strong correlation ($r = .70$) with project team satisfaction. The relationship was statistically significant at the $p < .01$ level. Intrinsic motivation had no other statistically significant correlations. Project team satisfaction had no statistically significant correlations with demographic variables.

Table 4

Intercorrelations Between Intrinsic Motivation, Project Team Satisfaction, Age, Gender, Undergraduate Classification, Ethnicity, and Race

	1	2	3	4	5	6
1. Intrinsic Motivation	-					
2. Project Team Satisfaction	.70**	-				
3. Age	-0.09	-0.06	-			
4. Gender	-0.09	-0.12	-0.11	-		
5. Ethnicity	-0.16	-0.11	-0.20	0.13	-	
6. Race	0.03	0.08	-0.19	0.04	0.18	-

** $p < .01$

Intrinsic Motivation Predicting Project Team Satisfaction

Multiple regression analysis was completed to determine whether a predictive relationship existed between intrinsic motivation and project team satisfaction. Project team satisfaction was treated as a dependent variable. Intrinsic motivation was treated as the independent variable of interest and demographic characteristics were treated as control variables.

Unstandardized regression coefficients in the form of variable level effects along with statistical significance are provided in Table 5. In Model 1 project team satisfaction was regressed against the demographic control variables of age, gender, ethnicity and race. The omnibus model was not statistically significant ($R^2 = .05$, $F(4,60) = .75$, $p = .56$). No demographic variables were statistically significant predictors of project team satisfaction. In Model 2 the variable of intrinsic motivation was included. Adding intrinsic motivation as a predictor variable in the model is associated with a statistically significant increase in R^2 ($\Delta R^2 = .44$, $F(1,59) = 51.58$, $p < .001$). Furthermore, intrinsic motivation is a statistically significant predictor of team satisfaction.

Model level variance (R^2), changes in R^2 between models, changes in F statistics, and significance of F statistic changes between models were calculated and are provided in Table 5. Model 1 explained 5% of the variance in project team satisfaction. The difference between Model 1 and Model 2 was statistically significant. Model 2 accounted for 49% of the variance in project team satisfaction.

Table 5

Multiple Regression of Project Team Satisfaction on Intrinsic Motivation and Demographic Characteristics

	Model 1	Model 2
<i>Constant</i>	7.48	-2.58
<i>Demographic Characteristics</i>		
Age	-0.03	0.00
Gender	-0.46	-0.21
Ethnicity	-0.58	-0.02
Race	0.68	0.31
<i>Intrinsic Motivation</i>		1.93***

*** $p < .001$

Table 6

Hierarchical Regression of Project Team Satisfaction on Intrinsic Motivation and Demographic Characteristics

Variable Entered	R^2	R^2 Change	F Change	Sig. of Change
Demographic Characteristics	0.05	0.05	0.75	0.56
Demographic Characteristics & Intrinsic Motivation	0.49	0.44	51.58	0.00

Conclusions, Implications, and Recommendations

The results of the study conclude that there were no statistically significant differences in intrinsic motivation or project team satisfaction based on demographic characteristics (age, gender, ethnicity, or race). In general agricultural leadership students had a high degree of IM ($M = 4.30$, $SD = .62$) for the project they selected and worked on with their team. Students had slightly lower levels of project team satisfaction ($M = 5.66$, $SD = 1.74$) with larger differences within the observed data. Ninety-five percent ($n = 64$) of the students indicated that they were overall satisfied with their team to varying extents. IM and project team satisfaction were very strongly, significantly correlated ($r = .70$) at the $p < .01$ level. Additionally, IM was a significant positive predictor of group satisfaction controlling for the demographic variables of age, gender, ethnicity, and race.

Based on the observations and conclusions of the study a number of recommendations for leadership development in undergraduate agricultural leadership students are suggested. Based on trends in the workplace team based project work should be part of agricultural education classes. Although there are a number of potential challenges associated with implementing project team assignments, such as social loafing, distracting or negative group behavior, or frustrations with teammates, the potential benefits to undergraduate agricultural students are significant. Project team based work provides agricultural undergraduate students the opportunity to develop interpersonal and management skills in an experiential learning environment. Courses focused on

social sciences, such as leadership development, are obvious candidates for project team based learning. However, project team based learning is also suggested in other academic settings. For example, STEM education has been shown to benefit from team based learning, development of teamwork skills in these environments are an ancillary, but noteworthy, benefit (Micari, et al., 2010).

Overcoming some of the preliminary dissatisfaction voiced by students to implementing project team based learning can be a significant impediment (Livingstone & Lynch, 2000). However, the results of this study provide very useful insights for how to overcome the team satisfaction dilemma. Specifically, undergraduate agricultural students' intrinsic motivation toward their project task had an unexpected and very strong predictive relationship with their team satisfaction. The implication of this finding is that to improve team satisfaction agricultural educators should appeal to intrinsic motivations of undergraduate agricultural students related to the assignment. Appealing to IM can have an immediate effect on team satisfaction, rather than focusing only on why teams themselves are important (Cardinal & Melville, 1987), it is also critical to ensure undergraduate agricultural students have a felt connection to the work they are doing.

As agricultural educators we must be aware that social influence strategies must be applied with a deft touch, otherwise they may have a deleterious effect. When individuals feel as though they are being controlled and monitored their IM decreases (Enzle & Anderson, 1993). Furthermore, in an academic environment extrinsic motivation in the form of grades represent a very real threat to the ability to cultivate IM; however, mastery, or self-directed goals tend to promote IM (Elliot & Church, 1997).

There are numerous suggestions for increasing undergraduate agricultural student IM on project teams. Buckmaster and Carroll (1999) suggests student motivation is a function of many variables; however, "instructor's enthusiasm, relevance of the material, organization of the course, appropriate difficulty of the material, active involvement of student, variety, rapport between teacher and student, and use of appropriate examples that are understandable and concrete" (p. 54), all contribute to increased IM. Offering choices, allowing undergraduate agricultural students to take an active role in learning, and providing valuable feedback have also been shown to result in greater levels of IM (Albrecht, Haapanen, Hall, & Mantonya, 2009).

Encouraging undergraduate agricultural students to engage in more autonomous, or self-determined, learning through IM has been shown to increase students' levels of perceived competence and skills (Williams & Deci, 1996). In organizational settings increased performance, individual well-being, and higher levels of job satisfaction have been observed when individuals are able to embrace their work using IM, or autonomous motivation (Gagne & Deci, 2005). Setting specific high task performance requirements and articulating a task's social or personal importance has also been shown to produce higher levels of IM (Eisenberger, Pierce, & Cameron, 1999)

Although improving IM for the purpose of increasing satisfaction is a worthy goal, ultimately performance improvement is also desired. Numerous studies have demonstrated that improved satisfaction has led to increased performance. For example, team satisfaction has been found to lead to improved academic performance (Lancellotti & Boyd, 2008), negotiation performance (Rockmann & Northcraft, 2010), and team performance (Pearsall & Ellis, 2006). A limitation of this study and a recommendation for future research is to collect and analyze team performance results in addition to satisfaction data.

The results of this study also have implications beyond agricultural education academic settings; if undergraduate agricultural students can learn to harness internal motivations regardless of situation they are more likely to be resilient and satisfied (Gagne & Deci, 2005). Robbins and Judge noted (2009) "happy workers are more likely to be productive workers...organizations with more satisfied employees tend to be more effective than organizations with fewer satisfied employees" (p. 88). If undergraduate agricultural students can learn to activate and harness IM their contributions to work teams and organizations may be significant. Future research is recommended to determine whether IM is related to team satisfaction in professional or agricultural

industry settings. Furthermore, additional research is suggested to examine the relationship between team satisfaction and job satisfaction within a professional agricultural audience. For example, personal growth and satisfaction best predicted overall job satisfaction within a sample of agriculture faculty (Foor & Cano, 2011). There may be opportunities to further explore whether the factor of personal growth and satisfaction is preceded by team satisfaction.

Additional research is also suggested to study the antecedents of IM as well as the mediators of IM on team satisfaction. For example, the effect of goals, whether mastery or performance based, has been shown to have an impact on how intrinsically motivated participants have been to achieve the goal (Elliot & Harackiewicz, 1994; Rawsthorne & Elliot, 1999). Future research should investigate whether goal orientation has a mediating effect on project team satisfaction. Antecedents of IM such as personalization, contextualization, and choice have been shown to have an effect on level of student motivation (Cordova & Lepper, 1996). Future research should investigate whether different IM approaches result in differing levels of group satisfaction and performance.

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