

Leonard "Ned" Sheehy
Randolph Middle School
nsheehy@rtnj.org

1/21/16

Ms. Jennifer A. Fano
Acting Superintendent of Schools
Randolph Township Board of Education
School House Rd.
Randolph, NJ

RE: Permission to Conduct Research Study

Dear Ms. Fano:

I am writing to request permission to conduct a research study at Randolph Middle School. I am currently enrolled in the Educational Technology Leadership Doctoral program at New Jersey City University, and am in the process of writing my Doctoral Thesis. The study is entitled *Using Robotics as a Manipulative in Mathematics Education*. I hope that the school administration will allow me to recruit thirty seventh graders from the school to anonymously participate in a robotics activity, take a brief pre/post test and complete a questionnaire.

If approval is granted, student participants will complete all activities in their classrooms and can choose not to participate at any time. All data will be collected for this study only and individual results will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either Randolph Township Schools or the individual participants.

Your approval to conduct this study will be greatly appreciated. If you agree, kindly sign below and return the signed form to me.

Sincerely,

Leonard Sheehy

I grant Leonard Sheehy permission to conduct research entitled *Using Robotics as a Manipulative in Mathematics Education* at Randolph Middle School.

Ms. Jennifer A. Fano, Acting Superintendent of Schools

Enclosures

cc: Dr. D. Copeland, A. Vital

Leonard Sheehy
Randolph Middle School
Informed Consent Form

Dear Parent/Guardian:

I am a graduate student in the Educational Technology Department at New Jersey City University as well as a technology teacher at Randolph Middle School. I will be conducting a research project under the supervision of Dr. Christopher Carnahan as part of my doctoral thesis concerning the effectiveness of educational robotics to enhance mathematics instruction. I am requesting permission for your child to participate in this research. The goal of the study is to determine to what extent robotics can be used in the classroom to improve mathematics comprehension.

Each child will be asked to take a pretest, participate in a robotics activity take a posttest and finally take a survey. There will be no risk to students. I have worked with the classroom teacher to create these tests to be similar to what is used as formative assessment in the class. Any child who expresses a desire not to participate will be provided with an alternative lesson and they may withdraw at any time. To preserve each child's confidentiality children will not be asked to place their name on the work they complete. All data will be used in this study only.

Your decision whether or not to allow your child to participate in this study will have absolutely no effect on your child's standing in his/her class. At the conclusion of the study a summary of the group results will be made available to all interested parents. If you have any questions or concerns please contact me at 973-366-8700 ext. 5195 or nsheehy@rtnj.org.

Sincerely,

Leonard Sheehy