

School Adolescent Primary Prevention: Communication through team courses

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Statement of the Problem

Overview

Social work has always been concerned with prevention. On my first day in a social work program I was told about prevention. How do we encourage people to refrain from behaviors that are unsafe to themselves and others? These behaviors can include teen pregnancy, drug abuse, bullying, or marital distress. All of these topics are familiar to us as clinicians. Many of us would find these terms more familiar if we added the word prevention after each topic. When we talk about prevention in classes we talk about PRE-vention, or primary prevention. Why have we come up with a redundant definition for this term? Because what we as social workers have adopted is a post-prevention model, or how do we make sure behaviors do not repeat after they have surfaced. This study is about a primary prevention technique.

Is there a link between the above behaviors and other unhealthy choices? Many researchers have said there is. Why would a teenager engage in unsafe sexual behavior? Why would a person continue drinking? Why would a spouse turn to violence? Research regarding these questions cite communication skills as a factor.

For most people communication issues do not arise over night. According to developmental theories we start to form our self image in junior high. In high school we start to challenge these ideas from outside sources (Papalia and Olds, 1995). We can not develop a self image without communication with others.

Population at Risk

The population at risk is all of us. Adolescence is a very critical stage in human development. This researcher's postulation is many adolescents feel their problems are unique to themselves. This can lead to many confused individuals who then engage in unhealthy, high risk behaviors because they are unaware of alternatives.

If one has a problem and does not talk to any one about it, he/she runs the risk of negative consequences. When one asks for other's ideas, he/she validates his/her ideas and looks for new ideas. An adolescent who does not investigate outside sources will go with what he/she perceives is the norm. That norm may be drinking, not completing an assignment, or just being a bully. How many adolescents would continue to pick on a peer if they knew how the other felt? We need to find a tool to open doors of communication with teens which will help them prevent the above mentioned behaviors.

Problem

The problem is youth are not learning how to communicate. They are not feeling they can identify with others, nor do they have a high out look on what they can achieve. Youth are either too scared, or do not know how, to ask for support. This can lead to a lower self-esteem. By placing youth in an environment that is cooperative as opposed to competitive, these skills will start to mature. Teams courses can help increase the maturing of these skills.

Teams, challenge, high ropes, climbing walls, wilderness adventure, or in-the-classroom-initiatives are all tools which have been assumed to raise communication, trust, and self esteem.

This paper will examine teams courses and communication skills. I will attempt to show that this primary prevention correlates to an increase in or improved communication skills.

Teams Courses

A teams course places seven to fourteen individuals together as a “team”. This team then has to accomplish a series of mental and physical challenges to attain its goal. The theoretical significance is found in developmental leadership as discussed in Belenkey, Bond and Weinstocks discussion (1997). They explain that when a group of people are in a situation where one’s actions may have a consequence on the group, people become committed to common goals. Once this happens, “people work collaboratively, trying to bring out the best in each other.”(p.274)

More specific theories pertaining to teams courses can be found in books by Rohnke (1988,1989,1991). Sakofs and Armstrong’s (1996) book discusses the theory and philosophy of outward bound and experiential education. Generally this philosophy is that people learn more by doing and can accomplish more as a group then the individual. Most social work is intervention. We tend to be the safety net when people fall off the tightrope. I believe teams courses allow social workers to work with people to give them the skills needed to balance successfully on that tightrope.

If people can feel comfortable asking for help jumping over a rope or walking across a balance beam, could they feel comfortable asking for help in other situations? Can they ask for help with an assignment they do not understand? When confused about the consequences of sex and feeling alone can they ask for help when making a choice? Maybe the answer is still no but without communication I would say the answer is always no.

Research Question

Does adolescent participation in a teams course affect communication skills?

Relevance

Lack of communication is a major factor in our society. Consultants in major corporations are being hired for thousands of dollars a day to train employees to talk to each other. I see daily miscommunications between colleagues as a school social work intern. I have seen functional and dysfunctional families. The more dysfunctional the family the more dysfunctional the communication.

Teams courses have the potential to revolutionize the way we do social work. Teams courses have been assumed by facilitator's and leaders in the experiential education field to increase a person's social and interpersonal skills, such as communication, self-esteem, planning, evaluation, leadership, problem-solving, and coping skills. The possibilities are endless with this kind of tool. Unfortunately, preliminary research has shown little to no primary prevention studies on teams courses. The above appears to be a universal assumption among people in the field and those who have been participants. This paper will explore the relationship between communication skills and participation in a teams course.

Definitions

Teams course: A place where individuals are put into a group of seven to fourteen members and then through ice breakers, deinhbitizers, initiatives, and/or trust activities, are challenged to work together to accomplish unique intrinsic and common extrinsic goals.

Communication: The process of giving and receiving information.

Communication skills: Being able to:

A. Express ideas, wants and needs in a manner others will be able to understand.

B. Be attentive to others' expression of ideas, wants, and needs.

Parts A and B can not happen in one person at the same exact time.

LIT REVIEW

History

The formal schooling of adventure education has roots in the YMCA Programs at George Williams College. Evidence of this is in the existing high and low ropes courses currently standing on the Lake Geneva Campus. Other roots extend overseas to Scotland during the 1920's.

Salem School was an alternative school set up by Kurt Hahn (Sakofs & Armstrong). The emphasis at this school was noncompetitive and democratic. Years later Hahn would help to develop the Outward Bound program. Outward Bound developed into a successful adventure education program that places real life challenges in front of individuals and the team. These challenges can include activities such as surviving with a group for a week in the wilderness, climbing a mountain, or crossing a river.

Karl Rohnke is best known for his books of games, activities, and initiatives. He has been active in adventure education and Project Adventure for over 30 years (experientia@ web site). He also had a hand in building and developing the multiple courses across the country.

Many teams courses are based off of the Outward Bound challenges. Instead of crossing a rushing river a group is asked to cross an imaginary river using only tree stumps. If any one touches the imaginary river, the group must start again. While this is not nearly as intense, it can be done anywhere, whether it is a school classroom or a field trip to the woods.

According to Smith, Carlson, Donaldson, & Mater's outdoor education text, both Southern and Northern Illinois Universities have been credited with founding Outdoor Education programs (1964, pp.116-117). Outdoor education did not focus on teams. The focus was more in moving education to an outdoor setting where students could learn directly about their relationship to the outdoors. All of these programs have a common theme of respect and responsibility

Philosophy of Teams

The philosophy of teams has been discussed heavily in the group centered perspective. Authors such as Belenkey, Bond, and Weinstock(1997) have discussed how women's groups over time have been empowered to take control of their situations and make positive changes in their communities. Once in these communities or teams, people find that barriers separate and start to break down. There is a realization that all are in the same situation together. The group moves forward once a goal is agreed upon. They share ideas and see their ideas put into action. Many will start to show their strengths and push themselves to contribute any way they can.

There are ties between modern day experiential learning and the outdoor education curriculum of the 1960's. "Outdoor education is based on an assumption that many things about the natural environment are learned best in direct contact with that environment. Such learning makes the deepest impact and endures the longest."(Smith et. al., p.4). Teams courses change the environment from the literal to the figurative. The team's environment is the members of the group and how they work, associate, and communicate with each other. The basic philosophy is

the same. People learn by doing. The individual must learn there are consequences for behavior and we must take a positive approach to those responsibilities.

Processing is a major contributor to the teams experience. After the activity is finished the facilitator does not lecture the group on what they did right or wrong. The facilitator asks questions of the group to start a dialog to raise awareness of the group process. The purpose is to transfer the learning of these activities to other life situations.

Rohnke summarizes the approach of Project Adventure as follows: “Life should be approached with the knowledge that an individual (self) is capable of doing more than that person initially perceives can be accomplished” (1991, p.300). This is why individuals are put together. They are then in an environment where their ideas can be cultivated into plans of action. Without this interaction individuals may never realize their potential. How can one become a leader in isolation? “Their struggles are often the beginnings of maturity which we believe entails, in part, having real experiences with a wide range of natural human reactions” (Rohnke, 1989, p.xiii).

In all my research I have found authors of activity books and literature from teams courses referring to an increase of communication, yet I have been unable to locate any formal studies.

Mike Stratton is a renowned story teller in the experiential education field. In one of his published stories he says, “We work with people, not paper”(1990, p.xi). I think this is a great insight into the lack of research in this area. Any facilitator knows how team courses work because he/she has experienced it. Even when there are seminars, there are hand-outs on activities but there are only discussions on theory.

Challenge Course Activities

I have found well over 300 activities that can be classified as warm-up, ice breakers, deinhbitizers, trust, risk, problem solving, high rope, or challenge initiatives (Rohnke, Sakofs & Armstrong). Most authors recommend sequencing these activities for best results. They also explain the usefulness of play as well as the importance of safety and challenge by choice. They contend no one should ever feel forced into participating in any of these activities.

The average activity presents a challenge to a group. The first thing team members will have to do is communicate to each other their suggestions of what their plan should be. This involves the sharing of each others ideas to come up with what will suit the group best. Next the plan will be implemented. The group will suffer the consequences if communication fails. Those consequences can include not attaining the group goal or possible emotional stress.

The first plan of the team's may not be the best. The group is then in the situation where they need to communicate to each other what is and is not working through the process of evaluation. Sometimes this evaluation is done in the moment when a member needs help and asks for it or suddenly sees a better way to proceed. The communication is successful when another member acknowledges the other's request.

If communication does not happen smoothly the facilitator will try to use the group's immediate experiences to help the group learn. Questions such as "Sue, when you were out there by yourself did you get what you needed?" or "Did anyone notice Jody's suggestion for getting across was not tried?" Sometimes the best question is to ask the group to rate their communication skills in the activity on a scale from one to five. The group will then ask why some members rated the communication high and others rated it low. This helps to foster communication skills.

Adolescent Development

According to Piaget, children base their thinking on their experiences. This is the concrete operational stage. When the child reaches adolescence she enters the formal operational stage. In this stage children start to form abstract thought and can have thoughts not based on experiences. Adolescents “are no longer limited to thinking about the here and now.”(Papalia & Olds, 1995, p360). This means an individual can learn how to apply experience from one situation to another. Papalia & Olds explain that this maturity can come about through interaction with peers. This would suggest adolescents at this stage can benefit from teams courses since they can apply their interactions back to the real world. For those who are not as mature, the teams course provides an avenue to further that maturity.

We take an individual who has just completed a goal and ask them if there are other ways they can apply what they just experienced in other parts of their life. They listen and hear what others have to say. They wonder if they can do the same. Then they share their ideas with the group in the same manner. The individual can now evaluate these ideas and decide if this fits into who they are or who they would like to be.

According to Erickson’s fifth stage of development, adolescents are looking for stability and continuity. They are struggling with their own identity, unsure of their role in society. Identity is, “a healthy, vital process that contributes to the ego strength of the adult” (Papalia and Olds, 1985, p.380). One establishes his/her identity based on his/her perceptions of the world. If we perceive that the world does not care about our opinion we will keep it to our self. If one perceives that others are allowed to share their opinions and are valued even when those opinions are different, then he/she will be more likely to share.

Primary Prevention

Social workers have quoted “an ounce of prevention equals a pound of cure.” Articles inside and outside of the social work field point to a link between communication, self-esteem, and decision making. These have been studies regarding teen pregnancy, drug and alcohol abuse, and corporate training for effective employees. Winett (1993), sites a correlation found between family problems and communication skills. Worden (1987) studies the effects of parent communication skills and adolescent smoking.

A longitudinal marital project studied the link between communication skills and marital happiness (Markman, Renick, Floyd, Stanley, & Clements, 1993). Their findings showed that couples who had attended a communication prevention program were not as likely to separate as much as those who did not. If a married couple can stay happier based off of communication skills then shouldn't adolescents be able to relate to those around them more positively based off of better communication skills.

Communication

Straton (1990) explains stories as an extension cord. It is the way we deliver the power of our experiences to other people. I would take this a step further to describe communication as the extension cord. It transfers power from one human being to another. There is a major power in understanding how others interpret the world with others knowing how you do the same.

The definition I offered earlier is basic and measurable. Communication is more than giving and receiving information. Rothwell says, “Communication is a transaction” and this “view of communication focuses on the relationship between people” (1992, p.5). There needs

to be an interaction where meaning is transferred from one person to another. One of the skills involved in effective communication is active listening. Where one does not engage in active listening goals are seldom accomplished.

Methodology

This project will be an exploratory project to investigate the effects a day at a teams course has on adolescent communication skills.. Many authors such as Rohnke (1989, 1991) and Sakofs & Armstrong (1996) have produced books on activities and the importance of such activities, yet there is still a void concerning evaluative research about a team's course effects on communication. I plan on exploring the development of communication in adolescents attending teams courses. I plan to find that the team members communication skill increase positively as the day progresses.

Limitations

A longitudinal marital project studied the link between communication skills and marital happiness (Markman, Renick, Floyd, Stanley, & Clements, 1993). Their findings showed that couples who had attended a communication prevention program were not as likely to separate as much as those who did not. The study went on to explain over time the difference between the sets of couples no longer was significant (1993, p76). This study is significant because it showed the link between communication skills and interpersonal relationships. This helps to show the benefits of effective communication skills. I will not be using their methodology due to it being a long term longitudinal study.

One day at a teams course will not be a panacea. There needs to be reinforcement of the communication skills developed as a result of the course. Just as other skills do not help us if we do not practice or review, communication is the same. We will not forget how to talk but we

may forget how to communicate effectively with others. Teams courses can be used as a tool to develop a strong foundation of communication.

Another bias that I am concerned about is a personal one. Since I am a teams course facilitator and already believe in the benefits that can be derived I want to be sure that I remain objective. I have attained this so far by sharing my survey with many of my research class colleagues. I also have been able to administer sample tests to a high school youth group. I was not concerned with answers but with ease of understanding.

Sample and Investigation

I plan on working with a teams course in the south Chicago suburbs. The population that attends this course is diverse. There will be groups from affluent suburbs and groups from the lower incomes of the inner city. The plan is to have participants fill out a pre-test, a post-test, and a follow up test four to six weeks after their day at the course.

The survey language will be easily understood by seventh graders, since this will be the youngest participant. The tests will be almost identical. Their will be demographic identification questions followed by ten Likert scale type questions. There will be four types of responses for each question to help diminish neutrality. Each test will be on a similar colored sheet of paper to help keep team responses together. The post test will contain a question asking if the participant had changed their view on communication during the day.

The follow up test will include a question asking if the participant had used his experience at the teams course as reference. The follow up tests will accompany the teachers back to their schools to be filled out at a later date. They will also include a self addressed stamped envelope. A follow up call will be used to remind them to fill out the tests and mail

them back. It is now appearing that the follow up tests will not be able to be used in this project due to time constraints. I will report on what, if any, follow-up surveys are returned to me.

I plan on handing out surveys for two consecutive weeks starting April 2nd. During this time there should be about four to six groups a day with a range of seven to fourteen team members per group. Multiplying this number by fourteen days in the two week period should yield a sample between 392 to 2096 responses. From the returned surveys I will take a random sample. This test will be administered by other facilitators. I will be meeting with them on their training day to explain the system and what it is I will expect from them. I plan on using surveys as opposed to behavior observations in order to remain objective.

Instrument

The instrument I am using is one that I have created. It consists of 10 Likert scale questions. The first five rate the respondent's communication the second rate how the respondent feels others communicate. I have administered this questionnaire with 10th-12th graders at a local church group, my colleagues in my research class, and other team course facilitators. I will be able to check reliability by checking comparing responses from both sets of five questions within a team.

My variables will be the following:

Gender	Male/Female
Age	
Year in school	7 th - 12 th Grade
Ethnicity	Depending on responses I will set up categories
Team attendance	Is this the first time attending a teams course
Personal communication	
Other's communication	

According to Bisman and Hardcastle, exploratory designs, “Used to gather preliminary information on subjects or research units that determine characteristics and variables and examine the relationship between variables” (1999, p.36). I believe that most of the variables are independent and communication skills are the dependent variables.

Data Analysis

Since this study will examine data using a pre-test and post-test, the T-test will be used for primary data analysis. Dependent T-tests are used when comparing means that are either identical or related. With this project I will be comparing the means of identical data, pre-test to post-test, and related data, self communication to others communication skills.

Approval

A copy of my methodology and questionnaires were reviewed by the IRB. With their approval and the supervision of my instructor, Dr. Holly Nelson-Becker, under the auspices of Aurora University, I will be conducting this research. My respondents will be minors. Since I have the approval of the teams course to hand out questionnaires to all participants my research will become part of their program for a two week period.

Ethics

The main ethological perspective of this project is teleological. Communication is not good in and of itself. It can be good or bad depending on how the individual chooses to use it. The best manipulators have the best communication skills. The Utilitarian would ask if the team

course is best for the individual. Even though I am asking the individuals the questions I am looking at adolescents as a group

I will still be handing out letters of invitation to the respondents. The letter of invitation will instruct the respondent to show the letter to his guardian. The bottom half of the invitation will have a letter explaining to guardians what the research project is and how they can contact me with any questions.

Findings

Introduction

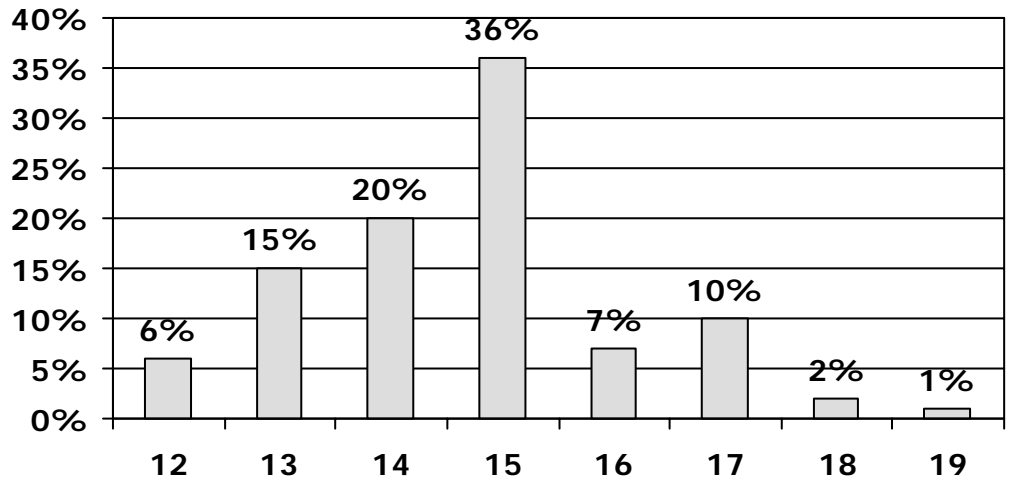
This study attempted to examine the relationship between adolescent communication skills and participation in teams course activities. Through a quantitative pre-test and a quantitative and qualitative post-test, adolescent teams course participant's communication skills were measured. Tests were administered to participants at the beginning and the end of their day at a team's course in the south suburbs of Chicago.

The sample

A sample of 338 adolescents was yielded over a two week period. The largest percentages of the respondents are: 36% 15 years old, 73% white, 60% freshmen in high school, and 51% Male. There was also a response rate of 50% that had attended a teams course before. The demographics of respondents are on the following pages. The frequencies generated relating to demographics were run through a computer data base system.

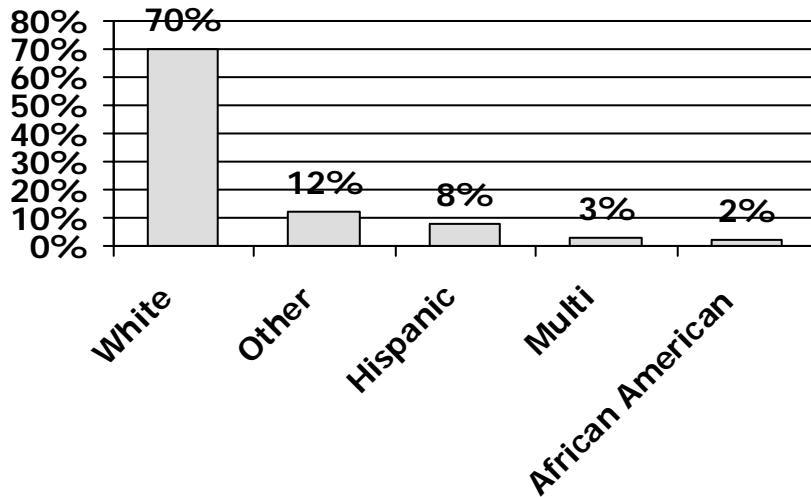
AGE

Age	Valid Percent
12	5.7
13	16
14	20.2
15	37.3
16	7.5
17	10.8
18	1.8
19	0.6
Total	100



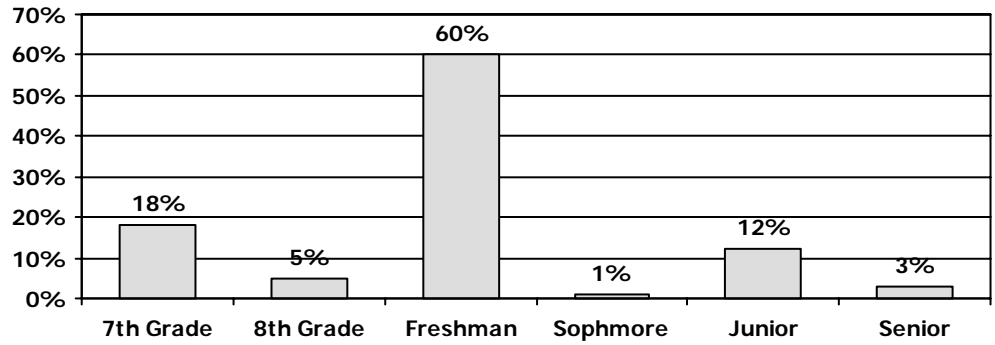
ETHNICITY

Ethnicity	Valid Percent
White	73.5
Hispanic	8.6
Multi	2.8
African-American	1.9
OTHER	13.3
Total	100



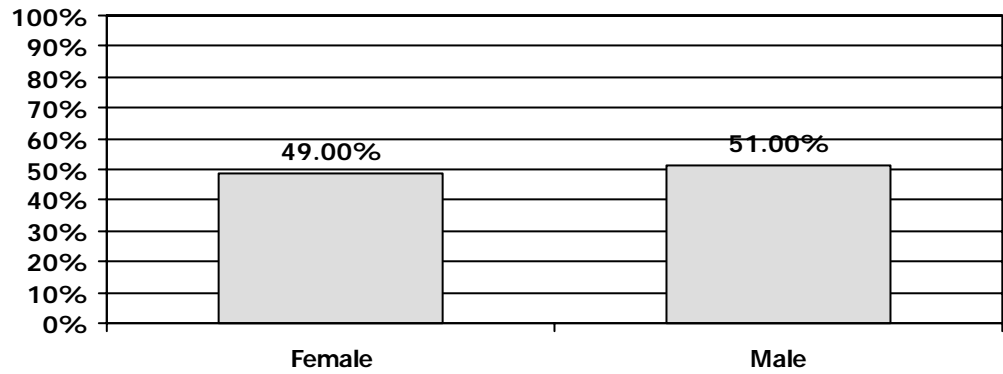
YEAR IN SCHOOL

Year in School	Valid Percent
6th Grade	0.3
7th Grade	18.1
8th Grade	4.5
Freshman	60.7
Sophomore	0.9
Junior	12.1
Senior	3.3
Total	100



GENDER

Gender	Valid Percent
Female	48.7
Male	51.3
Total	100



Presentation of the results

The variables examined were A.) How the individual perceived she communicated with others and B.) How the individual perceived how others communicated with her. This broke down into five subsets:

1. Complementing
2. Asking for assistance with directions
3. Listening
4. Discussing vs. arguing
5. Asking for help with a problem

These variables were compared with the variable of participation in the team's course. This was accomplished by running T-tests between and within the pre-test and post-test. The results are on the following pages.

When analyzing the data it is important to note the significance and correlation values. Significant values of a p value $< .001$ are highly significant. Correlation values are stronger as they approach +1 or -1. A (+)1 correlation is a perfect positive correlation.

Gender Differences

Male vs. Female

Pre-Test

		Females				Males			
		Mean	Difference in Means	Correlation	Sig.	Mean	Difference in means	Correlation	Sig.
Pair 1	S Complementing	1.8963	-0.3720	0.477	0.000	2.0465	-0.2151	0.559	0.000
	O Complementing	2.2683				2.2616			
Pair 2	S Ask w/ directions	1.9268	-0.3232	0.248	0.001	2.1098	-0.0693	0.147	0.054
	O Ask w/ directions	2.2500				2.1792			
Pair 3	S Listening	1.7081	-0.4037	0.354	0.000	1.9711	-0.2254	0.323	0.000
	O Listening	2.1118				2.1965			
Pair 4	S Discuss	2.4024	-0.0183	0.514	0.000	2.5202	0.0924	0.466	0.000
	O Discuss	2.4207				2.4277			
Pair 5	S Ask for Help w/ prob.	1.9630	-0.1296	0.381	0.000	2.0888	-0.0710	0.345	0.000
	O Ask for Help w/ prob.	2.0926				2.1598			

The above table compares the pre-test means of Female vs. Male respondents. The difference between self communication and other's communication is shown. A negative score reflects a higher self rating of self communication than others.

Male vs. Female

Post-Test

		Females				Males			
Post Test		Mean	Difference in Means	Correlation	Sig.	Mean	Difference in means	Correlation	Sig.
Pair 1	S Complementing	1.7778	-0.2654	0.572	.000	1.9532	-0.1696	0.569	.000
	O Complementing	2.0432				2.1228			
Pair 2	S Ask w/ directions	1.8293	-0.3902	0.405	.000	2.1824	-0.0294	0.350	.000
	O Ask w/ directions	2.2195				2.2118			
Pair 3	S Listening	1.7160	-0.3457	0.387	.000	1.9118	-0.0823	0.443	.000
	O Listening	2.0617				1.9941			
Pair 4	S Discuss	2.0675	-0.0245	0.517	.000	2.2659	0.0058	0.644	.000
	O Discuss	2.0920				2.2601			
Pair 5	S Ask for Help w/ prob.	1.8282	-0.1718	0.401	.000	2.1287	-0.0117	0.479	.000
	O Ask for Help w/ prob.	2.0000				2.1404			

The above table compares the post-test means of Female vs. Male respondents. The difference between self communication and other's communication is shown. A negative score reflects a higher self rating of self communication than others.

Male vs. Female Self Communication Skills

Pre-Test vs. Post-Test

		Females				Males			
Pre vs. Post		Mean	Difference in Means	Correlation	Sig.	Mean	Difference in means	Correlation	Sig.
Pair 1	S Complementing	1.8963	0.1219	0.393	.000	2.0405	-0.2200	0.686	.000
	S Complementing	1.7744				1.9711			
Pair 2	S Ask w/ directions	1.9268	0.0975	0.364	.000	2.1163	-0.0756	0.293	.000
	S Ask w/ directions	1.8293				2.1919			
Pair 3	S Listening	1.6975	-0.0062	0.369	.000	1.9767	0.0581	0.478	.000
	S Listening	1.7037				1.9186			
Pair 4	S Discuss	2.4049	0.3374	0.396	.000	2.5202	0.2543	0.336	.000
	S Discuss	2.0675				2.2659			
Pair 5	S Ask for Help w/ prob.	1.9627	0.1242	0.382	.000	2.0774	-0.0297	0.445	.000
	S Ask for Help w/ prob.	1.8385				2.1071			

The above table compares self communication of males vs. females between the pre- and post-tests. Here a positive difference in means represents a move toward 1.0, which is a higher rating of communication skills.

Male vs. Female Others' Communication Skills

Pre-Test vs. Post-Test/

		Females				Males			
Pre vs. Post		Mean	Difference in Means	Correlation	Sig.	Mean	Difference in means	Correlation	Sig.
Pair 6	O Complementing	2.2716	0.2284	0.426	.000	2.2647	0.1353	0.502	.000
	O Complementing	2.0432				2.1294			
Pair 7	O Ask w/ directions	2.2500	0.0305	0.308	.000	2.1813	-0.0292	0.314	.000
	O Ask w/ directions	2.2195				2.2105			
Pair 8	O Listening	2.1111	0.0617	0.344	.000	2.1930	0.1988	0.541	.000
	O Listening	2.0494				1.9942			
Pair 9	O Discuss	2.4207	0.3292	0.348	.000	2.4277	0.1676	0.413	.000
	O Discuss	2.0915				2.2601			
Pair 10	O Ask for Help w/ prob.	2.0976	0.0915	0.400	.000	2.1860	0.0407	0.483	.000
	O Ask for Help w/ prob.	2.0061				2.1453			

The above table compares others' communication of males vs. females between the pre- and post-tests. Here a positive difference in means represents a move toward 1.0, which is a higher rating of communication skills.

Previous Teams Course Attendance

Previous Teams Course Attendance

Pre-Test

Pre		Never Attended		Correlation	Sig.	Have Attended		Correlation	Sig.
		Mean	Differences in means			Mean	Differences in means		
Pair 1	S Complementing	2.0536	-0.3214	0.4780	0.000	1.8862	-0.2635	0.5480	0.000
	O Complementing	2.3750				2.1497			
Pair 2	S Ask w/ directions	2.0000	-0.2381	0.1270	0.100	2.0476	-0.1369	0.2430	0.002
	O Ask w/ directions	2.2381				2.1845			
Pair 3	S Listening	1.8144	-0.4191	0.2680	0.000	1.8855	-0.1868	0.4360	0.000
	O Listening	2.2335				2.0723			
Pair 4	S Discuss	2.4940	0.0178	0.4480	0.000	2.4405	0.0595	0.5240	0.000
	O Discuss	2.4762				2.3810			
Pair 5	S Ask for Help w/ prob.	1.9756	-0.2195	0.3600	0.000	2.0783	0.0181	0.3720	0.000
	O Ask for Help w/ prob.	2.1951				2.0602			

The above table compares the Pre-Test means of respondents who have and have not attended a teams course before. The difference between self communication and other's communication is shown. A negative score reflects a higher self rating of self communication than others.

Previous Teams Course Attendance

Post-Test

Post		Never Attended		Correlation	Sig.	Have Attended		Correlation	Sig.
		Mean	Differences in means			Mean	Differences in means		
Pair 1	S Complementing	1.8963	-0.1769	0.6270	0.000	1.8512	-0.2440	0.523	0.000
	O Complementing	2.0732				2.0952			
Pair 2	S Ask w/ directions	1.9157	-0.3012	0.3800	0.000	2.1078	-0.1018	0.370	0.000
	O Ask w/ directions	2.2169				2.2096			
Pair 3	S Listening	1.8293	-0.1890	0.4190	0.000	1.8024	-0.2335	0.392	0.000
	O Listening	2.0183				2.0359			
Pair 4	S Discuss	2.1250	0.0119	0.6250	0.000	2.2156	-0.0179	0.576	0.000
	O Discuss	2.1131				2.2335			
Pair 5	S Ask for Help w/ prob.	1.9820	-0.0659	0.5250	0.000	1.9940	-0.0964	0.379	0.000
	O Ask for Help w/ prob.								

The above table compares the Post-Test means of respondents who have and have not attended a teams course before. The difference between self communication and other's communication is shown. A negative score reflects a higher self rating of self communication than others.

Previous Teams Course Attendance
Pre-Test vs. Post-Test
Self Communication Skills

		Never Attended				Have Attended			
		Mean	Differences in means	Correlation	Sig.	Mean	Differences in means	Correlation	Sig.
Pair 1	S Complementing	2.0536	0.1429	0.5160	0.000	1.8810	0.0298	0.5900	0.000
	S Complementing	1.9107				1.8512			
Pair 2	S Ask w/ directions	2.0060	0.0838	0.4470	0.000	2.0476	-0.0655	0.2600	0.001
	S Ask w/ directions	1.9222				2.1131			
Pair 3	S Listening	1.8133	-0.0060	0.4520	0.000	1.8802	0.0718	0.4520	0.000
	S Listening	1.8193				1.8084			
Pair 4	S Discuss	2.4940	0.3690	0.3810	0.000	2.4431	0.2275	0.3440	0.000
	S Discuss	2.1250				2.2156			
Pair 5	S Ask for Help w/ prob.	1.9632	-0.0123	0.4180	0.000	2.0788	0.0909	0.4430	0.000
	S Ask for Help w/ prob.	1.9755				1.9879			

The above table compares pre-test vs. post-test self communication of respondents who have and have not attended a teams course before. Here a positive difference in means represents a move toward 1.0, which is a higher rating of communication skills.

Previous Teams Course Attendance
Pre-Test vs. Post-Test
Others' Communication Skills

		Never Attended				Have Attended			
		Mean	Differences in means	Correlation	Sig.	Mean	Differences in means	Correlation	Sig.
Pair 6	O Complementing	2.3841	0.3109	0.5400	0.000	2.1497	0.0479	0.4030	0.000
	O Complementing	2.0732				2.1018			
Pair 7	O Ask w/ directions	2.2455	0.0299	0.3020	0.000	2.1796	-0.0300	0.3150	0.000
	O Ask w/ directions	2.2156				2.2096			
Pair 8	O Listening	2.2289	0.2108	0.4040	0.000	2.0723	0.0482	0.4900	0.000
	O Listening	2.0181				2.0241			
Pair 9	O Discuss	2.4762	0.3631	0.3620	0.000	2.3810	0.1489	0.4240	0.000
	O Discuss	2.1131				2.2321			
Pair 10	O Ask for Help w/ prob.	2.2083	0.1547	0.4240	0.000	2.0778	-0.0180	0.4880	0.000
	O Ask for Help w/ prob.	2.0536				2.0958			

The above table compares pre-test vs. post-test of respondents who have and have not attended a teams course before. Here a positive difference in means represents a move toward 1.0, which is a higher rating of communication skills.

17 Year-old Correlation and Significance

17 Year-old participants

Pre-Test

Pre		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.6944	36	0.586	0.000
	O Complementing	2.1389	36		
Pair 2	S Ask w/ directions	1.9167	36	0.289	0.088
	O Ask w/ directions	2.0000	36		
Pair 3	S Listening	1.6111	36	0.224	0.189
	O Listening	1.9167	36		
Pair 4	S Discuss	2.1389	36	0.501	0.002
	O Discuss	2.0833	36		
Pair 5	S Ask for Help w/ prob.	1.9118	34	0.424	0.013
	O Ask for Help w/ prob.	2.0000	34		

This chart compares the means of the paired self vs. others questions on the pre-test of 17 year-old participants.

17 Year-old participants

Post-Test

Post-Test		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.7714	35	0.6720	0.000
	O Complementing	1.9143	35		
Pair 2	S Ask w/ directions	1.7778	36	0.4260	0.010
	O Ask w/ directions	2.1111	36		
Pair 3	S Listening	1.6000	35	0.3880	0.021
	O Listening	1.9143	35		
Pair 4	S Discuss	1.8333	36	0.8220	0.000
	O Discuss	1.9167	36		
Pair 5	S Ask for Help w/ prob.	1.8056	36	0.5460	0.001
	O Ask for Help w/ prob.	1.8333	36		

This chart compares the means of the paired self vs. others questions on the post-test of 17 year-old participants.

17 Year-old participants
Pre-Test vs. Post-Test
Self Communication Skills

Pre vs. Post		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.6944	36	0.7860	0.000
	S Complementing	1.8056	36		
Pair 2	S Ask w/ directions	1.9167	36	0.5310	0.001
	S Ask w/ directions	1.7778	36		
Pair 3	S Listening	1.6286	35	0.6040	0.000
	S Listening	1.6000	35		
Pair 4	S Discuss	2.1389	36	0.3080	0.067
	S Discuss	1.8333	36		
Pair 5	S Ask for Help w/ prob.	1.9118	34	0.4320	0.011
	S Ask for Help w/ prob.	1.8529	34		

This table compares the means of self skills on the Pre-Test vs. self skills on the Post-Test.

17 Year-old participants
Pre-Test vs. Post-Test
Others' Communication Skills

		Mean	N	Correlation	Sig.
Pair 6	O Complementing	2.1429	35	0.6380	0.000
	O Complementing	1.9143	35		
Pair 7	O Ask w/ directions	2.0000	36	0.3230	0.055
	O Ask w/ directions	2.1111	36		
Pair 8	O Listening	1.9167	36	0.4190	0.011
	O Listening	1.9167	36		
Pair 9	O Discuss	2.0833	36	0.2280	0.181
	O Discuss	1.9167	36		
Pair 10	O Ask for Help w/ prob.	2.0278	36	0.6170	0.000
	O Ask for Help w/ prob.	1.8333	36		

This table compares the means of others' skills on the Pre-Test vs. others' skills on the Post-Test.

Full Sample

Pre-Test

		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.9703	337	0.521	.000
	O Complementing	2.2641	337		
Pair 2	S Ask w/ directions	2.0237	338	0.189	.000
	O Ask w/ directions	2.2130	338		
Pair 3	S Listening	1.8448	335	0.341	.000
	O Listening	2.1552	335		
Pair 4	S Discuss	2.4645	338	0.488	.000
	O Discuss	2.4260	338		
Pair 5	S Ask for Help w/ prob.	2.0271	332	0.364	.000
	O Ask for Help w/ prob.	2.1265	332		

This chart compares the means of the paired self vs. others questions on the Pre-Test. The significance in this graph is $p < .000$. The correlation values are strongest regarding Complementing and Discussing vs. Arguing. These statistics demonstrate two things. First, the pre-test instrument is reliable. The correlation and the p value show that these answers did not happen randomly. Second, *adolescents, before attending a team's course rate their own communication skills higher than others.*

Post-Test

		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.8713	334	0.573	.000
	O Complementing	2.0868	334		
Pair 2	S Ask w/ directions	2.0090	335	0.346	.000
	O Ask w/ directions	2.2179	335		
Pair 3	S Listening	1.8168	333	0.408	.000
	O Listening	2.0300	333		
Pair 4	S Discuss	2.1691	337	0.596	.000
	O Discuss	2.1780	337		
Pair 5	S Ask for Help w/ prob.	1.9851	335	0.452	.000
	O Ask for Help w/ prob.	2.0746	335		

This chart compares the means of the paired self vs. others questions on the Post-Test. The significance in this graph is $p < .000$. All of the correlation values have moved closer to 1.00. The correlation values are still strongest regarding Complementing and Discussing vs. Arguing. *This test shows stronger correlations between self and others' communication.* The only mean to move away from 1.0 was that of others' asking for assistance with directions.

Pre-Test vs. Post-Test Self Communication

		Mean	N	Correlation	Sig.
Pair 1	S Complementing	1.9675	338	0.555	.000
	S Complementing	1.8787	338		
Pair 2	S Ask w/ directions	2.0267	337	0.303	.000
	S Ask w/ directions	2.0148	337		
Pair 3	S Listening	1.8418	335	0.445	.000
	S Listening	1.8149	335		
Pair 4	S Discuss	2.4659	337	0.365	.000
	S Discuss	2.1691	337		
Pair 5	S Ask for Help w/ prob.	2.0212	330	0.420	.000
	S Ask for Help w/ prob.	1.9788	330		

This table compares the means of self skills on the Pre-Test vs. self skills on the Post-Test. These Paired T-tests yield a probability of $p < .000$ and correlations that are all positive. All five variables on self communication skills moves closer to 1.0 between the Pre-Test and the Post-Test. *This means that adolescents reported an increase in personal communication skills after attending a day at a team's course.*

Pre-Test vs. Post-Test Others Communication

		Mean	N	Correlation	Sig.
Pair 6	O Complementing	2.2673	333	0.468	.000
	O Complementing	2.0901	333		
Pair 7	O Ask w/ directions	2.2143	336	0.309	.000
	O Ask w/ directions	2.2173	336		
Pair 8	O Listening	2.1527	334	0.447	.000
	O Listening	2.0240	334		
Pair 9	O Discuss	2.4260	338	0.380	.000
	O Discuss	2.1775	338		
Pair 10	O Ask for Help w/ prob.	2.1424	337	0.445	.000
	O Ask for Help w/ prob.	2.0801	337		

This table compares the means of others' skills on the Pre-Test vs. others' skills on the Post-Test. These Paired T-tests yield a probability of $p < .000$ and correlations that are all positive. These correlations are not as strong as the self communication variables but they are still significant. Four out of the five variables on others' communication skills moves closer to 1.0 between the Pre-Test and the Post-Test. The only exception to this is Pair 2.

Today's activities have made me more aware of communication.

	Percent
Yes	94.2
No	4.4
Missing	1.5
Total	100

I can think of other situations where I can apply what I learned today about communication.

	Percent
Yes	65.9
No	32.1
Maybe	0.3
Missing	1.7
Total	100

If yes above, where?

	Percent
School	16.8
Work	5.3
Family	2.2
Specific to Team	2.2
Sports	8.4
Every Day	9.7
Listening to Others	0.4
Team Skills.	2.2
Importance of Communication	17.7
Self	4.0
Multiple Responses	24.8
Missing	6.2
Total	100

Important Findings

Gender

The most significant correlation found when comparing genders was that of .686. This was found when comparing the pre-test and post-test means of males self communication skills of Complementing. This means that after a day's activities at a teams course, adolescent boys are more likely to complement others when they have done a good job. Females responded similar but the correlation was not as strong as the males.

The most interesting finding came out of comparing the differences in means of males and females. The gap between self communication skills and others for females was larger. Both adolescent males and females tend to rate their own communication skills higher than that of others. The exception to this was males responded that they felt others were able to discuss problems with out arguing more than themselves.

Although both male and female adolescents reported an increased in personal and others' communication skills, the difference between the means of self and others' communication skills is greater in male than female adolescents. When comparing self communication skills to that of others', females tended to rate themselves higher than males rated themselves. Over all the gender that saw the most change in means in both self and others were males. Both of these statements support that males were more affected by the day's activities than females.

Previous Attendance

There is evidence of significance regarding previous attendance to a teams course. After establishing the correlation and the p values the change in means were compared. The greatest change in means during the post test occurred with those who had been to a teams course before.

This suggests that attending a teams course multiple times may increase communication skills and awareness even more. Unfortunately the correlation on these tables does not strongly support this statement.

Age and Ethnicity

Not printed in this paper are age and ethnicity statistics. Since 73% of the respondents were white there was not enough data to show a correlation among other ethnicities. Because of the high percentage of white respondents this demographic reflected the full sample.

Also not printed were the statistics for all ages. Because of the large percentage of 15 year-olds this demographic also was significant and reflected the full sample. The ages that yielded little or no statistical significance were 12, 14, 16, 18, and 19 year-olds. It was interesting to see that there were less 13 year-old (n 53) than 14 year-old (n 67) respondents, but there were significant p values and correlation within the 13 year-old subset.

The strongest correlation found in the statistics was with in the 17 year-old subset. Unfortunately only about 50% of the compared means were significant but those that were had correlations ranging from 0.586 to 0.822. This infers that all ages' communications skills are affected by teams courses and 17 year-olds may be the most affected. Because of the low sample of the 17 year-olds (n 36) it is hard to say that this is statistically significant.

Full Sample

When examining the entire population of this sample a few statistically significant findings stand out. Correlations increase toward a +1 from the pre-test to the post-test to comparing the pre-test and post-test means. This would reinforce that the variable involved in change is the participation in the teams course. Both the pre-test and post-test reflect that respondents rate their self communication skills higher than others’.

The only comparison of means that had a change away from stronger communication skills was others’ rating of asking for help with directions. This could mean that communication skills did not increase with this skill but there was an increase in awareness of communication skills. Overall the full sample’s statistics support the statement that adolescent communication skills increase as a result of teams course participation.

Awareness and Application

The last charts above reflect the individual’s awareness of communication after a day’s activities and where he or she feels he or she can apply it. Ninety-four percent of the respondents reported that they became more aware of communication. Of that 94%, 65 % reported that they could think of other situations where they could apply what they had learned about communication.

See Appendix A. for a list of some of the responses to this question. Please note that the answers are as true to the original responses including any grammatical errors. Even though these statistics do not have a *p* value it is important to realize there significance.

Conclusions

This study attempted to explore the relationship between adolescent communication skills and participation in teams courses.

Overall the statistics state that students rated themselves and others with higher communication skills at the end of the day. This was statistically significant in the full sample and in the subsets of males, females, 15 year-olds, 13 year-olds, and respondents that had or had not attended a teams course before.

Some may argue that this study measured perception of communication skills and not behaviors. Even so there is an increase in awareness of communication and change can not occur until one is aware of their behaviors. The other evidence that supports the quantitative statistics is the qualitative piece of the study. The statistics on awareness may be one of the reasons why so many have felt that teams courses are beneficial to participants. Ninety-four percent of respondents reported an increase of awareness of communication as a result of their day. This is what team facilitators have been claiming from the beginning days of Kurt Hahn's Salem School.

Limitations

The original plan was to survey close to 1,000 participants. Surveys were made for 80 teams. Only 24 teams were surveyed yielding a sample of 343. This was a more than adequate number of respondents for this project. The draw back to this was a less diverse sample, where as the bulk of the surveys were distributed to an entire freshman class. A paired T-Tests excluding all freshman still came up with statistically significant results supporting the above.

One of the teams to partake in the study was a cross between regular and special education students. I was informed by one of the facilitators that a few of the students with special needs filled out the survey but may have not understood the questions.

There were no specific guidelines for the participants as they filled out the survey. Participants were not told to sit away from each other. Since some teams were chosen by the team members their may have been some collaborative survey completion.

Time was limited for this project. The teams course that was used to collect data is open all year but it was not until early April that there were enough participants to yield a sample. Because of this I have been unable to include the follow-up surveys. Only two teams have completed follow-up surveys at this time.

Future Research

In the future clear expectations need to be discussed with the teams course and facilitators as to what is to be expected. In order to have adolescents with special needs participate effectively the survey may need to be re-visited or outside support to help with comprehension of the survey. Finally if this study is to be repeated time constraints of an educational program will not interfere with the process of data collection.

Implications

Through the lit review it was realized that this project would be exploratory. There has not been much written on teams courses but these findings do not disagree with the philosophies of teams, communication, or the Markman et al. study on primary prevention. The statistics on age groups can be applied to Piaget's theory of development. The high correlations of 17 year-olds may be an insight into Piaget's formal operational stage and a population worth future research.

There is now evidence to support the positive effects, specifically communication skills, of teams courses. As social workers we are called to evaluate the programs and interventions we use. Using the survey alone with one group can help to validate a teams program within a school or agency. School social workers are continually seeing more and more students. Because of this many have started to implement more group work. Teams courses are a tool that can be utilized to work with groups in almost any situation. The literature stated that communication is a preventative skill. With increased communication other life skills increase. (Winett, 1993 & Worden, 1987)

Since this project has been exploratory I invite others to recreate this study. This study needs to be repeated at a different teams course or with a different demographic. The exploring is not finished yet. Through more research and program evaluations of teams courses more students will benefit from this primary prevention.

Appendix A

“I can think of other situations where I can apply what I have learned about communication today . . .”

Listen to others and take everybody’s opinion into consideration.

When I’m on the job and someone is asking for help I can talk them through.

Because you need communications skills are important.

Like if we argue I can fix it by communicating

If someone is in a bad situation I can help them out by what I learned

I can communicate in classes when we have a project.

If I have a problem I can talk it out with someone

If I have a problem at school I can always talk to someone about it and listen to their ideas on how to help.

I can apply them at school and at my house to not argue and communicate respectfully.

Later in life when I need to solve problems, I will be able to take my communication skills and become a leader and a follower.

In school especially because you face challenges on a daily basis so team work and communication is important.

It can help at school and home and even out with friends. It is important to communicate in order to understand and get things done.

If another person has an idea I could improve on it and maybe the other person can improve on my ideas.

It makes me more aware.

I take a few minutes and think what the situations about.

You have to be able to listen to people and try things until you get it right all the time in every day life.

Try to listen to everyone’s ideas and keep on trying even if you don’t get it the first time.

When we're at school we could help each other with strategies on how to do things. Also others could help you to.

You can learn from your mistakes and find easier ways to do things.

I fell like I can go to people and work with them and ask for help now. I used to be more alone.

You need to listen and be perceptive if you want to be successful.

Yes I did, because I talked it through with other people before the problems were solved.

If you don't understand something in school you need to ask 4 help.

Talking with my parents and working with them instead of against them.

To take others ideas and cooperate with people better.

I learned that everybody in the group should of listen to each other and not interrupted people so much.

From this experience I've learned to get along better with others and how to deal with things when put under pressure.

When I get into any situation it could be the smallest thing but I know how to discuss and work out the problem.

You can use it everyday especially when you're around people you can't get the things done if you don't talk it out before, during, and after each project.

Work, school, home. We can communicate in all these places.

When trying to get a job if at first you don't succeed keep trying.

You can show others that seek advice that cooperation is the key.

The things we learned today are things we can use everyday of our lives in interacting with people and solving problems.

Maybe with my parents I can listen to what they say.

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Pre-test

School Name: _____

Name: _____

Age: _____

What is your ethnicity? _____

Please circle your answers to the following questions

What is your year in school

6----7----8----9----10----11----12

What is your gender

A. Female B. Male

Have you ever attended a teams course before?

A. Yes B. No

	Always	Most of the time	Sometimes	Never
1. I let others know when they have done a good job.	1	2	3	4
2. I ask others for assistance when I do not understand the directions.	1	2	3	4
3. I listen to others when they are talking.	1	2	3	4
4. I can discuss my disagreements without arguing.	1	2	3	4
5. If I have a problem I ask for help.	1	2	3	4
6. Others let me know when I have done a good job.	1	2	3	4
7. Others ask me for help when they do not understand the directions.	1	2	3	4
8. Others listen to me when I am talking.	1	2	3	4
9. Others discuss their disagreements with me with out arguing	1	2	3	4
10. Others ask me for help when they have a problem.	1	2	3	4

Post-test

School Name: _____

Name: _____

Please circle your answers to the following questions

	Always	Most of the time	Sometimes	Never
1. I let others know when they have done a good job.	1	2	3	4
2. I ask others for assistance when I do not understand the directions.	1	2	3	4
3. I listen to others when they are talking.	1	2	3	4
4. I can discuss my disagreements without arguing.	1	2	3	4
5. If I have a problem I ask for help.	1	2	3	4
6. Others let me know when I have done a good job.	1	2	3	4
7. Others ask me for help when they do not understand the directions.	1	2	3	4
8. Others listen to me when I am talking.	1	2	3	4
9. Others discuss their disagreements with me with out arguing	1	2	3	4
10. Others ask me for help when they have a problem.	1	2	3	4

11. Today's activities have made me more aware of communication between myself and others.

Yes No

12. I can think of other situations where I can apply what I have learned about communication today.

Yes No

13. If Yes on #12 please explain.