Abstract Title Page

Title:
Evaluation of the Transformative Potential of Positive Gender Socialization in Education for Peace Building

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Abstract Body

Background / Context:
Description of prior research and its intellectual context.
American Institutes for Research (AIR) is conducting an impact evaluation of UNICEF's teacher-training program and reinforcing text messages that aim to provide meaningful knowledge regarding the transformative potential of positive gender socialization in education for peace building in the region of Karamoja, Uganda. The impact evaluation assesses the effects of the teacher-training program, with an emphasis on gender socialization, on teachers' knowledge, attitudes, and practices concerned with gender equity, and positive gender socialization. We implemented a mixed-methods research design for the impact evaluation, using quantitative and qualitative methods. We compared the outcomes of interest among the teachers who benefit from the program with the outcomes of interest of comparable teachers in different schools who do not benefit from the program.

The impact evaluation is based on an eight-month intervention, with baseline data collected in March 2015 and endline data collected in November 2015. We will supplement the analysis of survey data with an analysis of qualitative data using text messages from teachers about their implementation experience, as well as teacher focus groups during endline. These qualitative methods are intended to collect data on teachers' construction of the lessons learned from the intervention and how they promote gender socialization, gender equity, and social cohesion at school and in the community. Furthermore, the qualitative data will help us to learn what teachers think about the program and how it can be revised and modified for improvement. Finally, we administered a survey to the head teacher of every school to gather administrative data that may help explain some results of the study.

Purpose / Objective / Research Question / Focus of Study:
Description of the focus of the research.
The evaluation is based on the following research questions for the primary and secondary objectives of this study: assessing the impact of the training program on changes in teachers' knowledge, attitudes and practices related to gender equality, and positive gender socialization.

1. Primary Objectives—Program Impact Questions
a) Did exposure to the training alone result in changes in teachers' **knowledge** of gender equality?
b) Did exposure to the training alone result in changes in teachers' **attitudes** of gender equality?
c) Did exposure to the training alone result in changes in teachers' **practices** related to gender equality?
d) Did exposure to the training and reinforcing text messages result in changes in teachers' **knowledge** of gender equality?
e) Did exposure to the training and reinforcing text messages result in changes in teachers' **attitudes** of gender equality?
f) Did exposure to the training and reinforcing text messages result in changes in teachers' **practices** related to gender equality?

2. Secondary Objectives—Process Evaluation Questions
a) How do coordinating center tutors deliver the UNICEF training?

b) How do teachers promote gender socialization and gender equality at schools?
c) What are the enabling or inhibiting factors that influence the implementation of gender socialization intervention in schools in Karamoja?
d) What are the strengths and challenges that teachers encountered when implementing the intervention?

Setting:
Description of the research location.
The study is set in Abim, Kaabong and Napak disctritcts, which are located in the Karamoja region of North Eastern Uganda.

Population / Participants / Subjects:
Description of the participants in the study: who, how many, key features, or characteristics.
One hundred five schools from eight Coordinating Centre Tutors (CCTs) located in the districts of Abim, Kaabong, and Napak are participating in the study, with a third of the schools receiving the training plus reinforcing text messages (the "complete intervention" group), another third receiving the teacher training only (the "limited intervention" group), and the other third not receiving any of the interventions (the control or "business as usual" group). A total of 916 teachers working in the 105 schools at the time of baseline data collection were surveyed.

Intervention / Program / Practice:
Description of the intervention, program, or practice, including details of administration and duration.
The program includes five broad activities: First, UNICEF and the Ministry of Education and Sports (MoES) provided a three-day training of trainers to Coordinating Centre Tutors (CCTs), District Inspectors of schools, and national-level trainers in the areas of gender, conflict, and identity. The aim of this training was to provide "trainers" with useful skills to foster a change in gender social norms. Second, UNICEF and MoES produced training manuals and distributed them to all trainers and teachers. Third, UNICEF and MoES provided the training in gender, conflict, and identity to teachers in both the complete intervention group and the limited intervention group to build teachers' individual capacity as important agents of change in gender-related norms. Fourth, teachers from the limited intervention group will also receive ongoing active teacher support and engagement through a mobile SMS platform (GenderTrac).

One thousand teachers from five districts in Karamoja receive either the complete or limited intervention. Fifth, UNICEF will provide two refreshing trainings in August and November 2015.

Research Design:
Description of the research design.
This evaluation is an 8-month experimental, mix-methods design that investigates if and how UNICEF's teacher training and Mobile SMS text messages affect teachers' knowledge, attitudes, and practices related to gender equality and positive gender socialization in schools.

To assess the impact of the program, the team implemented a randomized controlled trial (RCT) design where primary schools were randomly assigned to the "limited intervention," (teacher training only), "complete intervention," (teacher training plus reinforcing text messages) or "control" group (business as usual) within each CCT. An RCT is the most powerful research

design for drawing conclusions about the impacts of interventions on specific outcomes (Shadish & Cook, 2001). All teachers working in the schools assigned to any of the study groups participated in the research study.

We randomly assigned primary schools to each of the three study groups within each selected district and CCT in order to increase comparability across schools and teachers in the three study groups; thus, we stratified by two dimensions: by district and by CCT. Controlling by geographical location is important to account for key social norms that are relevant for the outcomes of interest. Considering the geographical proximity of the schools assigned to the same CCTs, sampling the three groups within each CCT is expected to increase the comparability across the three groups in many observed and unobserved dimensions.

Because of limited resources and capacity, UNICEF is providing the intervention package to only 1,000 of the approximately 2,000 teachers who work in the Karamoja region. Using a randomized assignment process to select those 1,000 teachers is likely the most ethical, fair, and transparent method for allocating program resources. To randomize schools, we utilized an updated list of schools located in Karamoja that includes the following information: district membership of each school, CCT membership of each school, the number of primary teachers working in each of these schools, as well as the school locations.

Data Collection and Analysis:
Description of the methods for collecting and analyzing data.
The baseline data collection started March 13 after the three survey pilots and before the teachers in the study groups received the training. To take advantage of the opportunities presented by the intervention, which brought together 1,000 teachers for training in 11 CCT locations, we collected the teacher survey data in the following way:

Intervention Groups. For the "complete" and "limited" intervention groups, we collected the teacher surveys the first day of the training (thus on Friday) and before the training activities began within the eight CCTs located in Abim, Kaabong, and Napak districts. All teachers attending the training were offered to do the teacher survey. The survey was administered at the training location because it allowed us to interview all teachers who participated in the teacher training in a cost-effective manner and within the budget restrictions for this impact evaluation.

Control Group. For the control group, we collected the teacher surveys by visiting the 35 control schools during regular school hours and from Monday through Thursday. All primary teachers working in the schools were offered to do the teacher survey. In this group, the data collection team tried to mimic the setting from the teacher training as much as possible to increase the comparability of the application.

The follow-up data collection in November will be implemented in the same manner in the intervention and control groups in order to control for the effects of the setting on the outcome variables.

Findings / Results:
Description of the main findings with specific details.
The impact evaluation will estimate the effects of the interventions on teacher outcomes. The outcomes of interests are teachers' knowledge, attitudes, and practices with respect to gender norms. We will collect endline data to measure the effects of the gender socialization interventions.

The impact evaluation will use the same instruments at baseline and endline to compare within each study group the gains (between baseline and endline) in terms of knowledge, attitudes, and practices with respect to gender norms. The same instruments will also be used in each of the three study groups to compare the gains across the three groups. Program impacts on teachers will be estimated using a multivariate statistical model that compares the change between baseline and follow up between intervention groups and the control group. Our econometric models will also account for the nested structure of the data—of teachers nested within schools and districts—by using cluster robust standard errors.

To the extent the data allow, we will conduct an exploratory analysis to investigate differential effects for male and female teachers. In other words, we will explore whether the interventions have differential impacts for female and male individuals. These investigations would be exploratory because we anticipate a small number of female teachers operating in these areas, and it is likely that our sample size will be insufficient to detect relatively small but meaningful effects on female teachers.

Conclusions:
Provided that the various stakeholders respond in the manner anticipated, the trainings—and potentially the active teacher support and engagement delivered using the mobile SMS platform—should lead to a set of initial effects or intermediate outcomes. The broadest intermediate outcome is expected to be a change in gender-related knowledge and attitudes among teachers. Training teachers in gender socialization increases teachers' knowledge on the difference between sex and gender, gender equity, the legal framework of equal access to education, and gender socialization and peace building. As a result of these changes in teachers' knowledge, attitudes might change, creating a shift in attitudes regarding the roles of men and women, the importance of education for boys and girls, and a feeling of a shared responsibility to encourage a gender-friendly school environment.

Appendices

Appendix A. References

References are to be in APA version 6 format.

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Appendix B. Tables and Figures

Teacher Knowledge (baseline)

Table 1. Knowledge About the Difference Between Gender and Sex: Percentage of Teachers Who Responded Correctly Whether the Following Statements Refer to Gender or Sex (Question 1)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N	Mean	N	Mean	N	Mean	C = T1	C = T2	T1 – C	T2 – C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Men do not cry. (G)	313	0.49	298	0.48	303	0.49	0.89	0.99	–0.01	–0.00
B. Girls should be gentle. (G)	310	0.50	298	0.54	300	0.52	0.34	0.76	0.08	0.03
C. Men cannot cook. (G)	312	0.59	294	0.58	298	0.60	0.79	0.91	–0.02	0.01
D. Women give birth to babies. (S)	311	0.81	296	0.75	304	0.77	0.06	0.18	–0.14	–0.11
E. Men do not menstruate. (S)	311	0.74	296	0.73	302	0.66	0.81	**0.04**	–0.02	–0.17
F. Women do not own land. (G)	309	0.63	294	0.63	302	0.62	0.91	0.90	0.01	–0.01
G. Girls wear pink. (G)	312	0.31	296	0.36	300	0.33	0.27	0.60	0.10	0.04
H. Men cannot get pregnant. (S)	313	0.74	299	0.71	304	0.70	0.40	0.31	–0.08	–0.09
Knowledge: Sum gender roles items	313	4.79	299	4.75	304	4.65	0.80	0.43	–0.02	–0.07

Notes: Robust *t*-statistics clustered at the school level. G stands for gender, S stands for sex. The Cronbach's alpha coefficient for this measure is 0.62. The alpha increases to 0.64 if item B is removed from the scale.

Table 2. Knowledge About Gender, Identity and Conflict: Percentage of Teachers Who Responded the Items Correctly

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N	Mean	N	Mean	N	Mean	C = T1	C = T2	T1 – C	T2 – C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Q2. Teachers distribute benefits and responsibilities fairly between girls and boys.	312	0.97	298	0.97	303	0.95	0.92	0.34	–0.01	–0.07
Q3. Conflict sensitive lesson plans promote respect among pupils regardless of where they	309	0.63	292	0.59	303	0.57	0.34	0.14	–0.09	–0.12

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N	Mean	N	Mean	N	Mean	C = T1	C = T2	T1 − C	T2 − C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
come from.										
Q4. What practice(s) represent violence against children?										
A. Asking children for sex **Yes**	313	0.79	298	0.78	304	0.77	0.86	0.71	−0.02	−0.04
B. Beating children **Yes**	313	0.83	299	0.84	304	0.82	0.80	0.67	0.02	−0.04
C. Making negative remarks about children's ethnic groups **Yes**	313	0.61	299	0.54	304	0.62	0.08	0.85	−0.15	0.02
Q5. A gender sensitive lesson plan…										
Gives boys and girls equal opportunities to participate in class activities	312	0.95	299	0.96	304	0.95	0.72	0.95	0.04	−0.01
Q6. The constitution of the Republic of Uganda protects educational rights for all Ugandans.	312	0.60	298	0.68	303	0.70	0.04	0.00	0.17	0.22
Q9. An equitable school environment…Proportion that responded Yes										
A. Takes into the account the unique needs of boys and girls	313	0.50	299	0.55	304	0.56	0.21	0.12	0.11	0.13
B. Does not discriminate against children with disabilities	313	0.67	299	0.62	304	0.69	0.16	0.67	−0.12	0.04
C. Welcomes all children from different ethnic backgrounds	313	0.77	299	0.79	304	0.83	0.73	0.10	0.03	0.13
Q10. Which of the following practices can promote peace? Proportion that responded Yes										
Distributing resources equitably	313	0.70	299	0.72	304	0.73	0.62	0.47	0.04	0.06
Do not avoid discussing sources of conflict	312	0.22	299	0.19	304	0.21	0.32	0.65	−0.09	−0.04
Establishing equal protection for all citizens	313	0.87	299	0.86	304	0.85	0.92	0.64	−0.01	−0.04
Promote gender equality	313	0.77	299	0.83	304	0.84	0.08	0.02	0.15	0.19
Q11. Which practices can promote a peaceful school? Proportion that responded Yes										
Do not expel troublesome pupils	313	0.23	299	0.25	304	0.23	0.56	1.00	0.05	0.00
Give boys and girls equal leadership opportunities	313	0.96	299	0.95	304	0.93	0.75	0.16	−0.02	−0.12

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N	Mean	N	Mean	N	Mean	C = T1	C = T2	T1 − C	T2 − C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Provide separate sanitary facilities for girls and boys	313	0.78	299	0.82	304	0.79	0.35	0.68	0.10	0.04
Do not avoid working with illiterate parents	313	0.09	299	0.04	304	0.08	0.06	0.76	−0.17	−0.03
Knowledge: Sum gender, identity, conflict items	313	11.91	299	11.95	304	12.12	0.91	0.47	0.01	0.08

Notes: Robust t-statistics clustered at the school level. Questions are coded as follows: Yes = 1, No = 0. The Cronbach's alpha coefficient for this measure is 0.67. The alpha increases to 0.69 if Q3 is removed from the scale.

Teacher Attitudes

Table 3. Attitudes Toward Gender Roles: Percentage of Teachers Who Responded That Males and Females Are Equally Capable of Doing the Activities (Question 12)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N	Mean	N	Mean	N	Mean	C = T1	C = T2	T1 − C	T2 − C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Engineering	313	0.67	298	0.76	304	0.71	0.02	0.28	0.21	0.10
B. Mechanics	312	0.48	294	0.52	301	0.52	0.28	0.31	0.09	0.08
C. Teaching at the university	311	0.96	298	0.97	302	0.97	0.40	0.53	0.07	0.05
D. Working as a nurse	312	0.68	299	0.78	302	0.76	0.00	0.02	0.23	0.19
E. Preparing food	312	0.38	298	0.46	303	0.44	0.03	0.17	0.16	0.10
F. Teaching primary 1 pupils	313	0.78	297	0.80	304	0.77	0.56	0.77	0.05	−0.02
G. Political leadership	313	0.88	298	0.90	303	0.91	0.56	0.32	0.05	0.07
H. Looking after babies	312	0.32	298	0.34	304	0.37	0.58	0.17	0.04	0.09
I. Working as secretary	313	0.70	298	0.71	304	0.74	0.88	0.24	0.01	0.09
J. Working as doctor	313	0.77	299	0.81	304	0.77	0.28	0.93	0.10	−0.01
Attitudes: Sum gender roles items	313	6.62	299	7.03	304	6.94	0.03	0.08	0.17	0.13

Notes: Robust t-statistics clustered at the school level. Questions are coded as follows: "Male & female equally capable" = 1, otherwise = 0. The Cronbach's alpha coefficient for this measure is 0.77.

Table 4. Attitudes Toward Gender Identity (Masculinity): Average Agreement Score to the Following Statements (Question 13)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
A. Men should be rough.	313	1.58	298	1.51	304	1.47	0.12	0.02	–0.12	–0.17
B. Some women need beating to soften.	313	1.81	297	1.75	304	1.78	0.39	0.63	–0.07	–0.04
C. A real woman knows how to cook.	312	3.10	296	3.11	304	3.05	0.89	0.43	0.01	–0.06
D. Being humble is the greatest beauty of a woman.	312	3.27	296	3.29	303	3.24	0.73	0.69	0.03	–0.03
E. Educated women make unruly wives.	312	2.18	297	1.99	304	1.98	0.00	0.00	–0.21	–0.22
F. A woman should tolerate domestic violence to keep the family together.	313	2.26	298	2.30	304	2.20	0.65	0.61	0.04	–0.05
G. When you beat girls, you raise obedient wives.	313	1.85	296	1.67	303	1.71	0.01	0.05	–0.23	–0.18
H. When you beat boys, you raise disciplined men.	313	1.94	297	1.88	304	1.91	0.34	0.74	–0.07	–0.03
I. A man can beat his wife if she refuses to have sex with him.	313	1.89	298	1.81	302	1.77	0.29	0.12	–0.09	–0.12
J. When boys fight with each other, they become confident.	312	2.00	295	1.98	303	1.89	0.81	0.13	–0.02	–0.12
K. A real man produces a male child.	312	1.57	298	1.50	304	1.46	0.29	0.10	–0.08	–0.13
L. A real woman produces a male child.	313	1.59	298	1.51	303	1.47	0.25	0.09	–0.10	–0.16
M. When men are speaking, serious women are not supposed to talk.	313	1.97	297	1.87	304	1.97	0.09	0.96	–0.12	–0.00
Attitudes: Sum gender identity items	313	26.97	299	25.98	304	25.88	0.02	0.01	–0.19	–0.20

Notes: Robust *t*-statistics clustered at the school level. Questions are coded as follows: Strongly agree = 4, Agree = 3, Disagree = 2, Strongly disagree = 1. The Cronbach's alpha coefficient for this measure is 0.70. The alpha increases to 0.71 if item 13d is removed from the scale.

Table 5. Attitudes Toward Gender Equity: Average Agreement Score to the Following Statements (Question 16)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		*p*-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q16. *To what extent do you agree or disagree with the following statements?*										
A. It is important for girls to complete primary education.	313	3.71	299	3.72	304	3.67	0.85	0.54	0.02	–0.05
B. It is important for girls to complete secondary education.	313	3.70	299	3.75	304	3.65	0.33	0.40	0.09	–0.08
C. It is important to educate boys to respect girls.	312	3.09	295	3.17	301	3.15	0.37	0.40	0.09	0.07
D. Boys are married too early.	312	2.91	297	2.92	303	2.86	0.90	0.58	0.01	–0.05
E. Girls are better than boys in mathematics. (reverse coded)	313	3.08	297	3.09	304	3.15	0.84	0.31	0.02	0.10
F. It is important to educate girls to respect boys.	313	2.99	298	2.86	303	2.91	0.10	0.27	–0.16	–0.09
G. Boys are better than girls in mathematics. (reverse coded)	313	2.42	298	2.52	303	2.39	0.19	0.57	0.09	–0.04
H. Gender equality has already been achieved in Karamoja. (reverse coded)	313	2.72	299	2.82	304	2.74	0.13	0.81	0.11	0.02
I. Boys and girls have the same ability to learn mathematics.	313	3.53	299	3.53	303	3.51	0.97	0.73	–0.00	–0.03
J. It is important for boys to complete primary education.	312	3.59	298	3.61	304	3.58	0.77	0.83	0.03	–0.02
K. It is important for boys to complete secondary education.	313	3.61	298	3.65	303	3.61	0.43	0.96	0.07	–0.00
L. Boys should ask questions in the classroom; girls shouldn't. (reverse coded)	313	3.76	299	3.66	303	3.72	0.03	0.44	–0.18	–0.07
M. It is my responsibility to help pupils solve conflict peacefully.	313	3.72	299	3.69	304	3.71	0.45	0.74	–0.06	–0.03
Attitudes: Sum gender equity items	313	42.80	299	42.84	304	42.56	0.92	0.48	0.01	–0.06

Notes: Robust *t*-statistics clustered at the school level. Questions are coded as follow: "Strongly agree" = 4, "Agree" = 3, "Disagree" = 2, "Strongly disagree" = 1. For items E, G, H, and L the coding was reversed, thus "Strongly agree" was coded as 1 and "Strongly disagree" was coded as 4. The Cronbach's alpha coefficient for this measure is 0.56. The alpha increases to 0.60 if item 16g is removed from the scale.

Table 6. Attitudes Toward Sexual Harassment, Gender Relations (*Vignettes):* Percentage of Teachers Who Show Positive Attitudes Toward the Hypothetical Situation

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		*p*-values		Diff (SD)	
	N (1)	Mean (2)	*N* (3)	Mean (4)	*N* (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q17. *John and Maria are in primary 6. John is sexually harassing Maria. Maria is very uncomfortable with John harassing her.*										
A. Would you intervene? **Yes**	313	0.89	298	0.90	303	0.88	0.81	0.64	0.03	–0.04
B. Whose fault is it? **John**	312	0.76	299	0.83	304	0.80	0.12	0.27	0.16	0.09
C. Would you ignore what you saw because pupils should learn how to solve their own problems? **No**	313	0.97	299	0.98	304	0.97	0.67	0.78	0.03	–0.02
D. Would you punish John for harassing Maria? **Yes**	313	0.65	298	0.61	304	0.59	0.43	0.14	–0.06	–0.12
E. Is it ok for Maria to hit John for harassing her? **No**	311	0.82	297	0.77	302	0.78	0.17	0.17	–0.12	–0.11
F. Would you advise John not to repeat such behavior? **Yes**	313	0.97	299	0.98	304	0.95	0.42	0.08	0.05	–0.14
Attitudes: Sum gender relations items	313	5.06	299	5.06	304	4.95	0.97	0.25	0.00	–0.12

Notes: Robust *t*-statistics clustered at the school level.

Table 7. Attitudes Toward Violence, Gender Relations (*Vignettes*): **Percentage of Teachers Who Show Positive Attitudes Toward the Hypothetical Situation**

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		*p*-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q18. *Andrew hit Sarah for teasing him.*										
A. Would you intervene? **Yes**	313	0.91	297	0.94	303	0.87	0.33	0.20	0.09	–0.12
B. Would you ignore what you saw because pupils should learn how to solve their own problems? **No**	313	0.97	299	0.98	304	0.94	0.58	0.27	0.05	–0.13
C. Would you punish Sarah for teasing Andrew? **Yes**	313	0.55	297	0.49	304	0.50	0.14	0.25	–0.12	–0.11
D. Would you punish Andrew for hitting Sarah? **Yes**	313	0.54	297	0.53	301	0.54	0.77	0.96	–0.02	–0.00
E. Would you talk to Sarah about not teasing Andrew? **Yes**	313	0.93	297	0.94	302	0.96	0.60	0.10	0.04	0.14
F. Would you talk to Andrew about not hitting Sarah? **Yes**	312	0.93	299	0.92	303	0.92	0.67	0.93	–0.04	–0.01
Attitudes: Sum gender relations items	313	4.83	299	4.78	304	4.73	0.56	0.38	–0.05	–0.09
Q21. *Jennifer hit Mark for teasing her.*										
A. Would you intervene? **Yes**	312	0.89	298	0.91	304	0.88	0.68	0.59	0.04	–0.05
B. Would you ignore what you saw because pupils should learn how to solve their own problems? **No**	312	0.93	298	0.94	304	0.95	0.85	0.26	0.02	0.09
C. Would you punish Mark for teasing Jennifer? **Yes**	311	0.58	298	0.50	304	0.51	**0.04**	0.07	–0.16	–0.14
D. Would you punish Jennifer for hitting Mark? **Yes**	311	0.54	298	0.50	303	0.52	0.35	0.54	–0.07	–0.04
E. Would you talk to Mark about not teasing Jennifer? **Yes**	312	0.94	295	0.94	302	0.94	0.70	0.78	–0.03	–0.02
F. Would you talk to Jennifer about not hitting Mark? **Yes**	311	0.91	295	0.93	304	0.93	0.22	0.22	0.08	0.09

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Attitudes: Sum gender relations items	313	4.78	299	4.68	304	4.73	0.28	0.64	–0.09	–0.05

Notes: Robust *t*-statistics clustered at the school level.

Table 8. Attitudes Toward Gender Roles (*Vignettes*): Percentage of Teachers Who Show Positive Attitudes Toward the Hypothetical Situation

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q19. *The new proposed English textbook describes a brother helping his sister in housework. He is washing the dishes, and she is sweeping the floor.*										
A. Would you support such picture in the textbook? **Yes**	313	0.97	299	0.97	304	0.97	0.68	0.94	0.03	–0.01
B. Is this an example of gender equity that you would promote? **Yes**	312	0.97	299	0.99	304	0.97	0.27	0.76	0.08	–0.03
C. Should the boy feel ashamed because he is doing housework? **No**	313	0.97	299	0.97	304	0.97	0.75	0.94	–0.03	–0.00
Attitudes: Sum gender roles items	313	2.91	299	2.93	304	2.91	0.52	0.92	0.05	–0.01
Q20. *The new proposed English textbook shows a father cooking dinner and looking after his baby.*										
A. Would you support such picture in the textbook? **Yes**	313	0.66	299	0.72	304	0.73	0.14	0.09	0.13	0.15
B. Is this an example of gender equity that you would promote? **Yes**	313	0.68	299	0.72	304	0.69	0.29	0.74	0.08	0.03
C. If this was your brother, would you think his wife is treating him well? **Yes**	281	0.47	278	0.50	278	0.48	0.53	0.70	0.06	0.03
Attitudes: Sum gender mainstreaming items	313	1.76	299	1.90	304	1.87	0.21	0.34	0.11	0.08

Notes: Robust t-statistics clustered at the school level.

Teacher Practices

Table 9. Teachers' Practices, Gender Responsiveness: Average Frequency Score for the Following Statements (Question 27)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		*p*-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 − C (9)	T2 − C (10)
Q27. *How often do you use any of the following methods to manage your pupils' behavior?*										
A. I ensure that pupils understand the consequences of violating school rules.	313	3.70	299	3.77	304	3.72	0.18	0.74	0.12	0.03
B. I ensure that boys use peaceful means to resolve conflict with their peers.	311	3.51	297	3.52	304	3.60	0.86	0.11	0.02	0.13
C. I ensure that girls use peaceful means to resolve conflict with their peers.	313	3.53	299	3.52	304	3.58	0.88	0.42	−0.01	0.07
D. I reward girls for behaving appropriately.	311	3.26	298	3.26	304	3.29	0.93	0.73	−0.01	0.03
E. If a girl is absent for genuine reasons, I help her catch up on the lessons.	312	3.22	299	3.25	304	3.26	0.67	0.49	0.04	0.06
F. If a boy is absent for genuine reasons, I help him catch up on the lessons.	313	3.23	299	3.23	303	3.28	0.99	0.45	0.00	0.07
G. If a boy is a trouble maker, I deny him break time.	313	1.61	297	1.43	303	1.56	**0.02**	0.54	−0.21	−0.05
H. If a boy continues to be a trouble maker, I talk with his parents.	312	3.30	296	3.35	302	3.42	0.43	**0.05**	0.07	0.17
I. If a boy continues to be a trouble maker, I cane him to set an example. (reverse coded)	309	2.83	298	2.88	302	2.80	0.55	0.68	0.05	−0.03
J. If a girl is a trouble maker, I deny her break time.	309	1.66	298	1.44	302	1.55	**0.00**	0.07	−0.25	−0.13
K. If a girl continues to be a trouble maker, I talk with her parents.	310	3.32	298	3.40	304	3.37	0.22	0.42	0.11	0.08

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
L. If a girl continues to be a trouble maker, I cane her to set an example. (reverse coded)	311	3.00	298	3.00	304	2.90	0.97	0.26	–0.00	–0.11
M. I reward boys for behaving appropriately.	313	3.36	299	3.38	304	3.38	0.78	0.72	0.02	0.03
Behaviors: Sum gender responsiveness items	313	39.37	299	39.32	304	39.64	0.90	0.45	–0.01	0.06

Notes: Robust t-statistics clustered at the school level. Questions are coded as follows: Often = 4, Sometimes = 3, Rarely = 2 and Never = 1. For items I and L, the coding was reversed; thus "Often" was coded as 1 and "Never" was coded as 4. The Cronbach's alpha coefficient for this measure is 0.63. The alpha increases to 0.69 if item 27g is removed from the scale.

Table 10. Teachers' Practices Related to Gender Equality: Average Frequency Score to the Following Statements (Question 28)

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q28. *How often do you do the following activities as a teacher?*										
A. I discuss how to improve pupils learning with other teachers.	313	3.70	298	3.76	304	3.73	0.08	0.46	0.12	0.06
B. I discuss strategies for providing a safe learning environment for girls.	313	3.69	298	3.68	304	3.60	0.87	**0.04**	–0.01	–0.16
C. I make sure boys and girls know their responsibilities as pupils.	313	3.83	298	3.88	303	3.81	0.06	0.65	0.13	–0.04
D. I encourage girls and boys to work together.	313	3.82	298	3.90	304	3.86	**0.00**	0.45	0.19	0.08
E. I make sure girls and boys know their rights as children.	313	3.83	298	3.83	304	3.83	0.96	0.97	–0.00	–0.00
F. I organize regular meetings with families to talk about their children.	311	2.65	296	2.71	304	2.76	0.44	0.11	0.07	0.14
G. I get pupils to work in small groups.	311	3.34	298	3.34	298	3.40	0.87	0.26	–0.01	0.09
H. I assign more difficult tasks to boys. (reverse coded)	310	3.39	295	3.37	303	3.32	0.82	0.33	–0.02	–0.08
I. I ask boys to lead group work activities.	311	2.24	295	2.09	300	2.16	**0.04**	0.26	–0.16	–0.08

Dependent Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
J. I include arts, drawing, songs, role-plays, music, and stories in my lessons.	313	3.50	298	3.51	303	3.51	0.97	0.85	0.00	0.02
K. I make sure girls and boys have equal opportunities to participate.	313	3.87	298	3.92	302	3.87	**0.04**	0.80	0.15	0.02
L. I ask girls to lead group work activities.	312	2.66	295	2.63	304	2.63	0.70	0.66	–0.03	–0.03
M. I assign easy tasks to girls. (reverse coded)	310	3.24	296	3.26	302	3.23	0.84	0.82	0.02	–0.02
N. I help female pupils develop self-confidence.	311	3.53	298	3.49	304	3.42	0.53	0.09	–0.04	–0.14
O. I protect girls by warning them against competing with boys in the classroom. (reverse coded)	310	3.59	297	3.60	303	3.59	0.94	0.96	0.01	0.00
P. I use the same strategies to teach girls and boys.	312	3.73	296	3.76	303	3.74	0.68	0.93	0.03	0.01
Q. I help male pupils develop self-confidence.	313	3.30	297	3.36	304	3.29	0.40	0.87	0.06	–0.01
Behaviors: Sum gender equality items	313	57.73	299	57.72	304	57.55	0.98	0.62	–0.00	–0.04

Notes: Robust t-statistics clustered at the school level. Questions are coded as follows: Often = 4, Sometimes = 3, Rarely = 2 and Never = 1. For items H, M, and O, the coding was reversed; thus, "Often" was coded as 1, and "Never" was coded as 4. The Cronbach's alpha coefficient for this measure is 0.72.

Table 11: Gender Issues in the School Environment: Average Agreement Score for the Following Statements (Question 26)

Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
Q26. *To what extent do you agree or disagree with the following statements about your school?*										
A. Teachers know about their pupils' families.	313	2.63	298	2.65	304	2.69	0.72	0.32	0.03	0.08
B. Teachers talk with pupils about their personal lives.	313	3.21	299	3.19	304	3.19	0.73	0.73	–0.03	–0.03
C. The head teacher respects all teachers.	309	3.13	298	3.11	302	3.12	0.81	0.93	–0.02	–0.01

Variable	Control		Training Only (T1)		Training + Text (T2)		p-values		Diff (SD)	
	N (1)	Mean (2)	N (3)	Mean (4)	N (5)	Mean (6)	C = T1 (7)	C = T2 (8)	T1 – C (9)	T2 – C (10)
D. The head teacher respects all pupils.	309	3.13	299	3.15	302	3.07	0.68	0.40	0.04	–0.08
E. Teachers respect all pupils.	310	3.17	296	3.15	302	3.07	0.68	0.06	–0.03	–0.15
F. My school tolerates bullying among boys. (reverse coded)	309	3.32	298	3.37	303	3.36	0.51	0.60	0.05	0.04
G. It is ok for boys to tease girls in my school. (reverse coded)	313	3.60	299	3.64	303	3.72	0.41	**0.02**	0.06	0.18
H. Girls can speak safely about what they like or do not like about their school.	312	2.93	299	3.07	304	2.92	**0.02**	0.90	0.19	–0.01
I. Boys can speak safely about what they like or do not like about their school.	312	2.92	297	3.07	304	2.97	**0.03**	0.49	0.21	0.06
J. It is ok for girls to tease boys in my school. (reverse coded)	311	3.67	299	3.63	304	3.64	0.44	0.56	–0.07	–0.05
K. Teachers organize clubs to encourage pupils to express themselves.	313	3.52	299	3.50	303	3.54	0.60	0.76	–0.04	0.02
L. Girls work with boys on extracurricular activities.	311	3.53	298	3.57	304	3.54	0.45	0.79	0.06	0.02
M. Pupils participate in extracurricular activities to promote peace building.	313	3.51	299	3.53	304	3.56	0.79	0.29	0.02	0.07
Behaviors: Sum school environment items	313	42.05	299	42.53	304	42.27	0.21	0.52	0.11	0.05

Notes: Robust *t*-statistics clustered at the school level. Questions are coded as follows: Strongly agree = 4, Agree = 3, Disagree = 2, Strongly disagree = 1. For items F, G, and J, the coding was reversed; thus "Strongly agree" was coded as 1, and "Strongly disagree" was coded as 4. The Cronbach's alpha coefficient for this measure is 0.71. The alpha increases to 0.73 if item 26f is removed from the scale.

Table 12. Knowledge About the Difference Between Gender and Sex: Percentage of Teachers and Trainers Who Responded Correctly Whether the Following Statements Refer to Gender or Sex

Variable	Intervention Teachers			Trainers		
	N	Mean	SD	N	Mean	SD
A. Men do not cry. (G)	601	0.49	0.50	11	0.82	0.40
B. Girls should be gentle. (G)	598	0.53	0.50	11	0.82	0.40
C. Men cannot cook. (G)	592	0.59	0.49	11	0.82	0.40
D. Women give birth to babies. (S)	600	0.76	0.43	11	0.82	0.40
E. Men do not menstruate. (S)	598	0.70	0.46	11	1.00	0.00
F. Women do not own land. (G)	596	0.63	0.48	11	0.82	0.40
G. Girls wear pink. (G)	596	0.34	0.48	11	0.55	0.52
H. Men cannot get pregnant. (S)	603	0.70	0.46	11	1.00	0.00
Knowledge: Sum gender roles items	603	4.70	2.03	11	6.64	2.34

Table 13. Knowledge about Gender, Identity and Conflict: Percentage of Teachers and Trainers Who Responded the Items Correctly

| Question	Intervention Teachers			Trainers		
	N	Mean	SD	N	Mean	SD
Q2. Teachers distribute benefits and responsibilities fairly between girls and boys.	601	0.96	0.20	11	0.91	0.30
Q3. Conflict sensitive lesson plans promote respect among pupils regardless of where they come from.	595	0.58	0.49	11	0.73	0.47
Q4. What practice(s) represent violence against children?						
A. Asking children for sex Yes	602	0.77	0.42	11	1.00	0.00
B. Beating children Yes	603	0.83	0.38	11	0.91	0.30
C. Making negative remarks about children's ethnic groups Yes	603	0.58	0.49	11	0.91	0.30
Q5. A gender sensitive lesson plan…						
Gives boys and girls equal opportunities to participate in class activities	603	0.95	0.21	11	1.00	0.00
Q6. The constitution of the Republic of Uganda protects educational rights for all Ugandans.	601	0.69	0.46	11	1.00	0.00
Q9. An equitable school environment…Proportion that responded Yes						
A. Takes into the account the unique needs of boys and girls	603	0.56	0.50	11	1.00	0.00
B. Does not discriminate against children with disabilities	603	0.66	0.48	11	0.82	0.40
C. Welcomes all children from different ethnic backgrounds	603	0.81	0.40	11	0.82	0.40
Q10. Which of the following practices can promote peace? Proportion that responded Yes						
A. Distributing resources equitably	603	0.73	0.45	11	1.00	0.00
B. Do not avoid discussing sources of conflict	603	0.20	0.40	11	0.36	0.50
C. Establishing equal protection for all citizens	603	0.86	0.35	11	1.00	0.00
D. Promote gender equality	603	0.83	0.37	11	1.00	0.00
Q11. Which practices can promote a peaceful school? Proportion that responded Yes						
A. Do not expel troublesome pupils	603	0.24	0.43	11	0.00	0.00
B. Give boys and girls equal leadership opportunities	603	0.94	0.23	11	1.00	0.00
C. Provide separate sanitary facilities for girls and boys	603	0.80	0.40	11	0.91	0.30
D. Do not avoid working with illiterate parents	603	0.06	0.24	11	0.00	0.00
Knowledge: Sum gender, identity, conflict items	603	12.03	2.73	11	14.36	1.63

Correlation Analysis

Figure 1. Correlation Between the Indicator "Knowledge About the Difference Between Gender and Sex" and 12 Summary Indicators
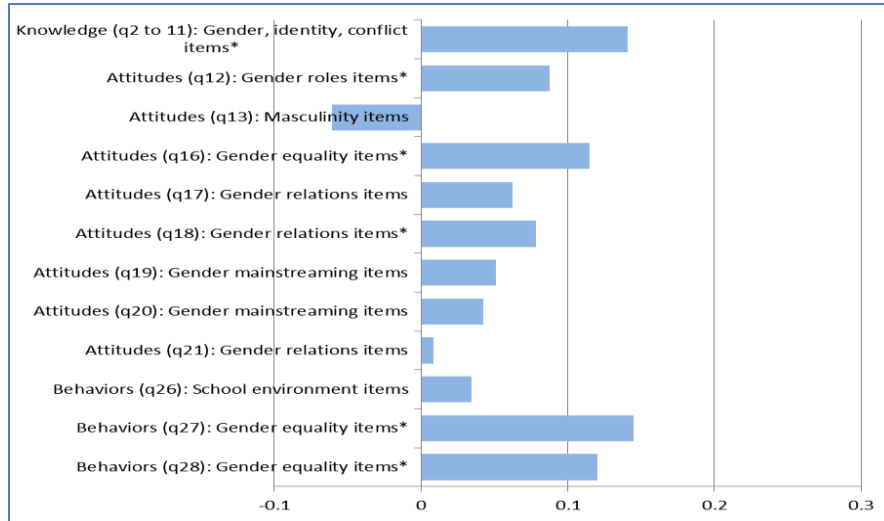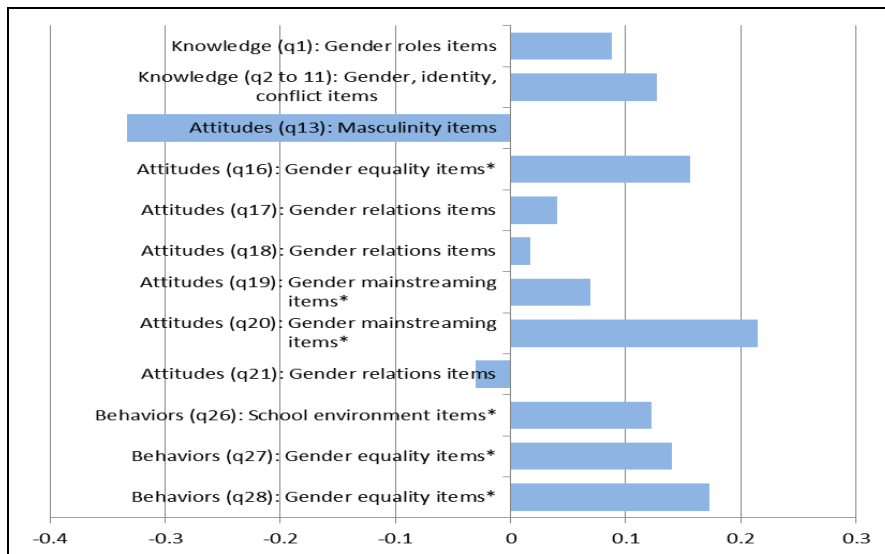

*$p = .05.$

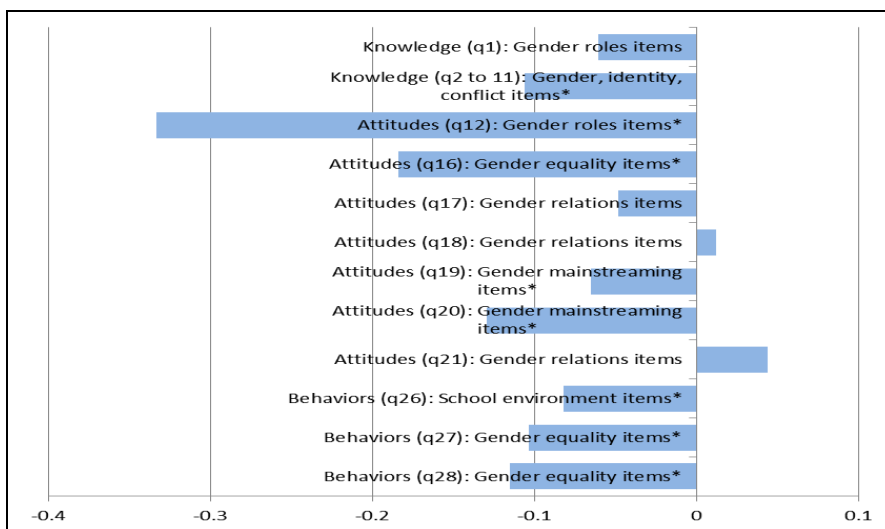**Figure 2. Correlation Between "Knowledge About Gender, Identity, and Conflict" and 12 Summary Indicators**
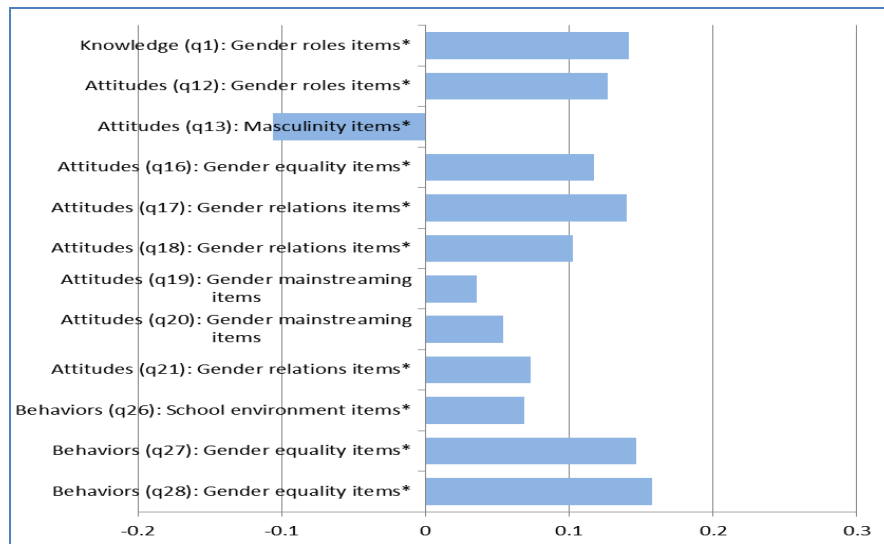
*$p = .05.$

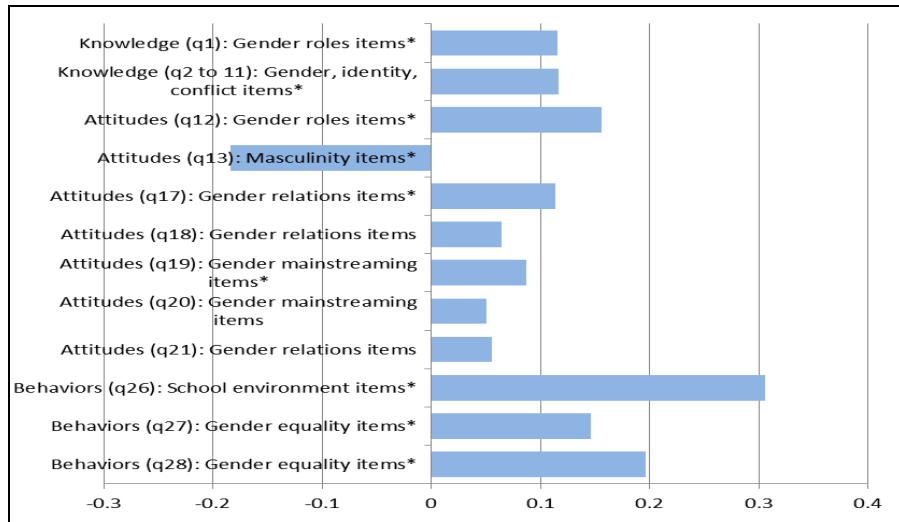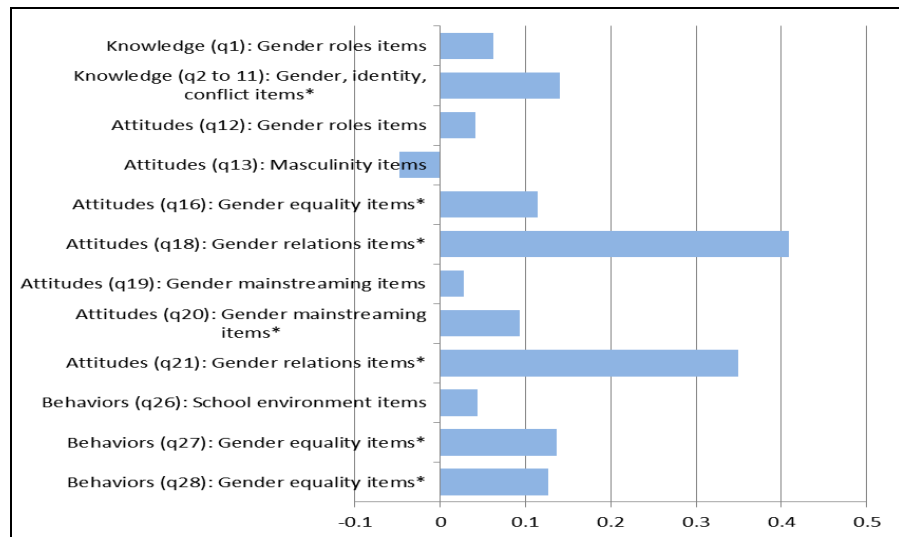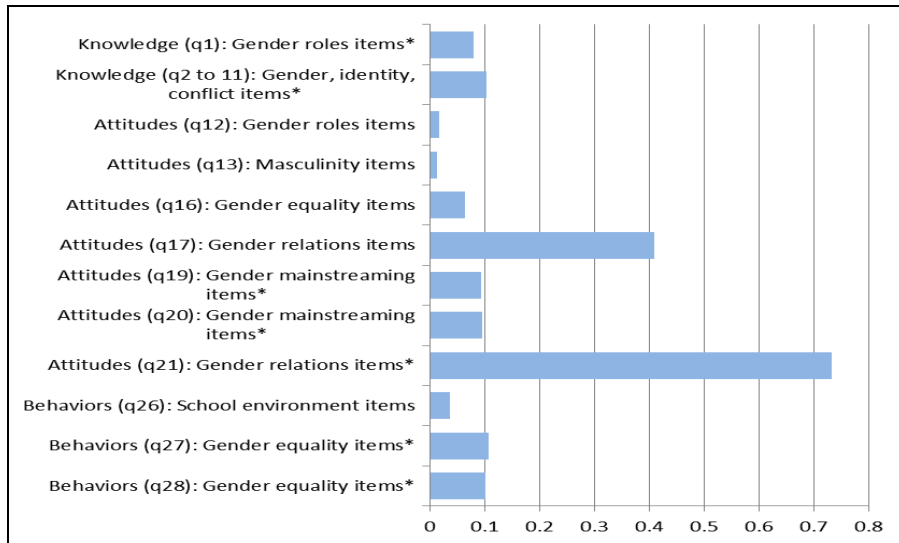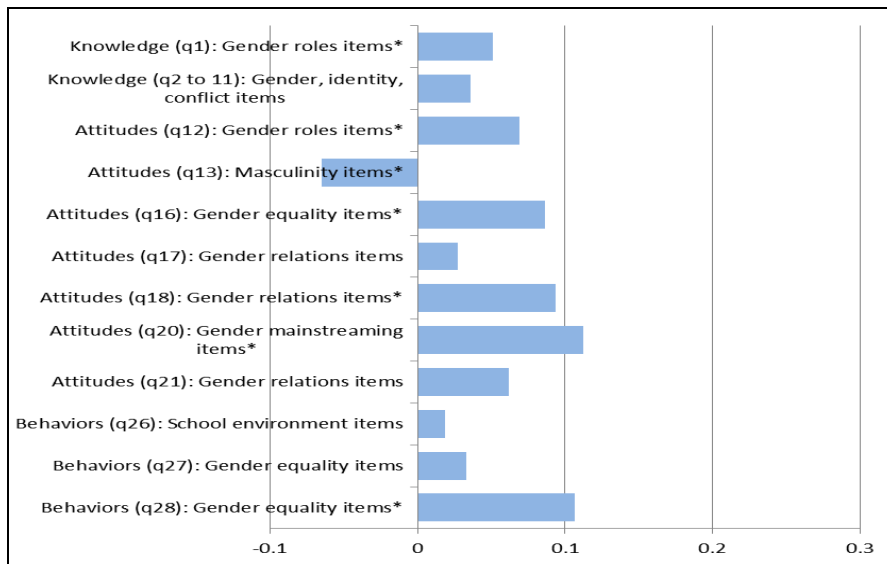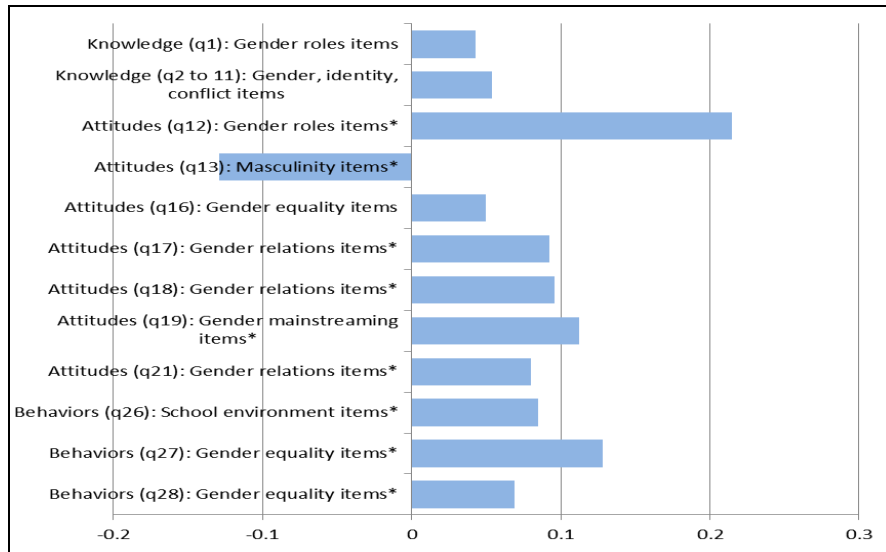**Figure 3. Correlation Between "Attitudes Toward Gender Roles" and 12 Summary Indicators**

*p = .05.

Figure 4. Correlation Between "Attitudes Toward Gender Identity or Masculinity" and 12 Summary Indicators

*p = .05.

Figure 5. Correlation Between "Attitudes Toward Gender Equity in the School" and 12 Summary Indicators

*p = .05.

Figure 6. Correlation Between "Attitudes Toward Sexual Harassment, Gender Relation" and 12 Summary Indicators

*p = .05.

**Figure 7. Correlation Between "Attitudes Toward Violence, Gender Relations" and 12 Summary Indicators**

Figure 8. Correlation Between "Attitudes Toward Gender Roles" and 12 Summary Indicators

Figure 9. Correlation Between "Attitudes Toward Gender Roles" and 12 Summary Indicators

Figure 10. Correlation Between "Attitudes Toward Violence, Gender Relations" and 12 Summary Indicators
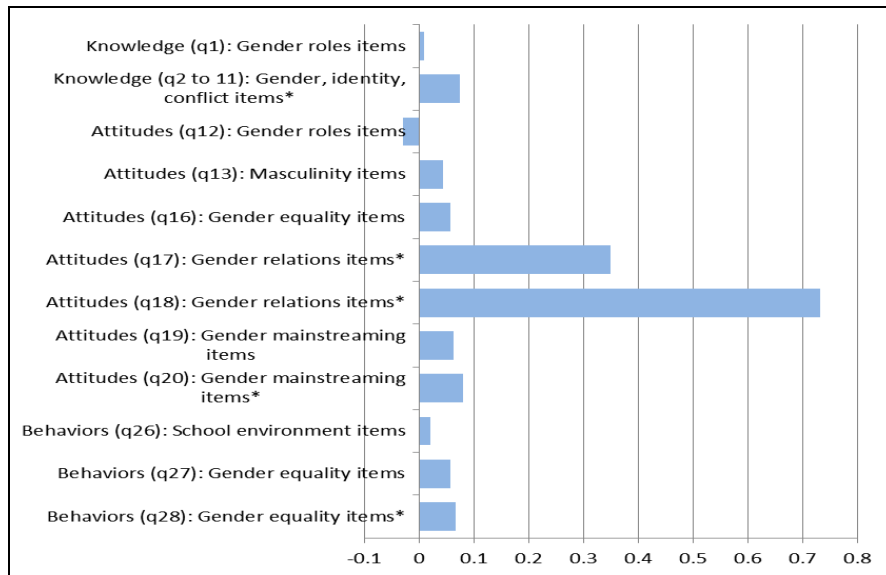
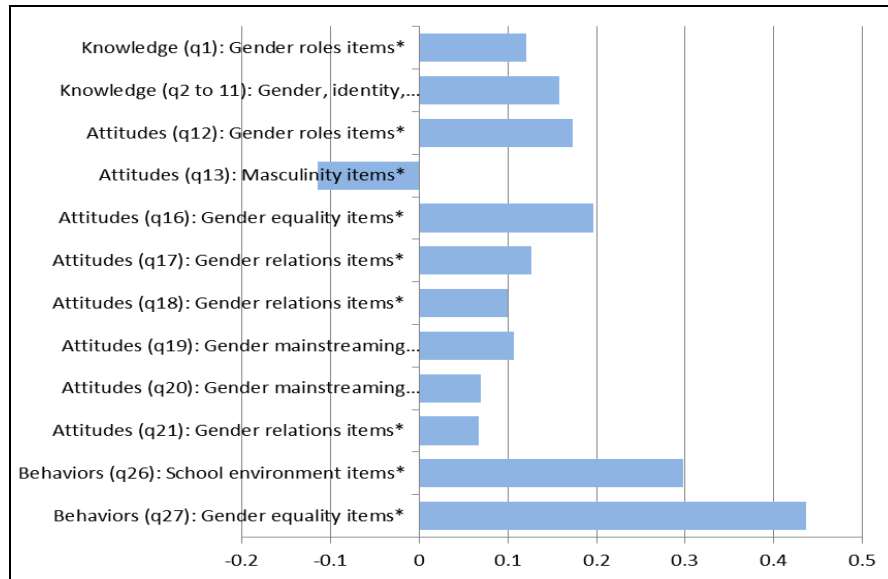**Figure 11. Correlation Between "Gender Issues in the School Environment" and 12 Summary Indicators**
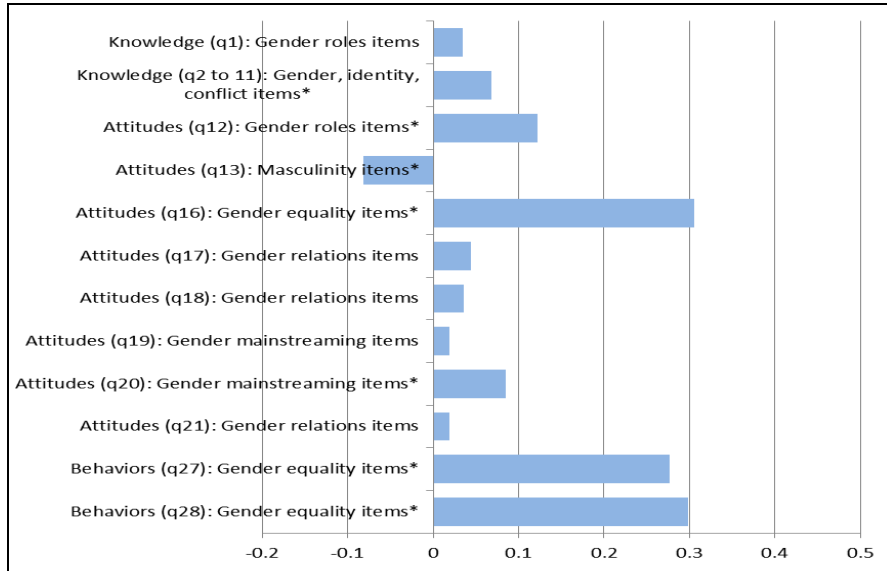
$^*p = .05.$

Figure 12. Correlation Between "Teachers' Practices, Gender Responsiveness" and 12 Summary Indicators
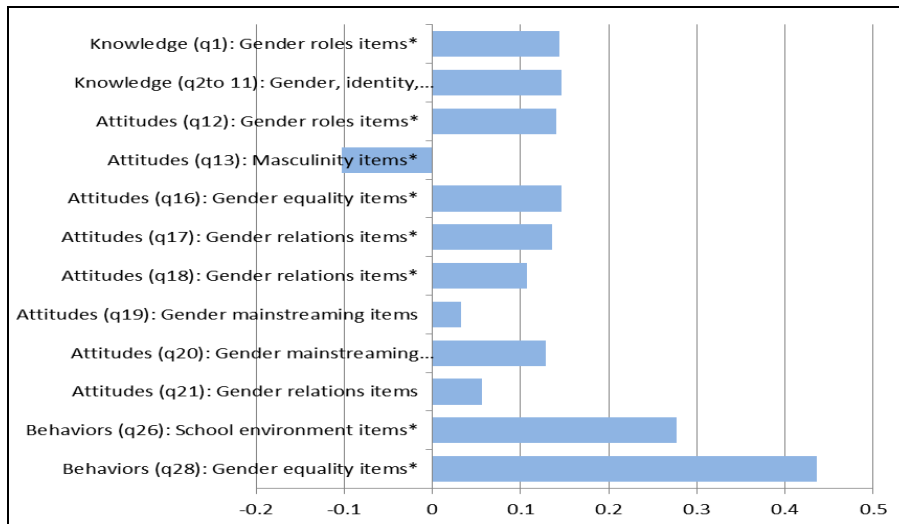
$^*p = .05.$

Figure 13. Correlation Between "Teachers' Practices Related to Gender Equality" and 12 Summary Indicators

*p = .05.