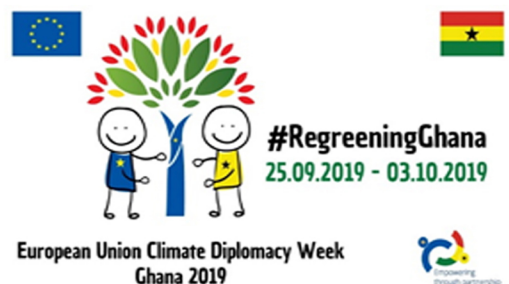


Report:

European Union Climate Diplomacy Week Ghana 2019



Compiled by **Research and Grant Institute of Ghana**
November, 2019



EXECUTIVE SUMMARY

This report provides an overview of an assessment carried out by the Research and Grant Institute of Ghana (REGIG) as a sponsor of the Climate Diplomacy Week organized by the European Delegation to Ghana. The assessment and report covered the following activities;

- Workshop on climate change and youth actions;
- Awareness sessions at schools on tree planting and plastic re-use, reduce and recycle;
- Beach cleaning with awareness promotional materials.

Data were collected from 78 participants, comprising 57 Junior High School (JHS) pupils selected from Accra and 21 Senior High School (SHS) and tertiary students from a workshop in Kumasi. The key findings of the assessment are summarized below:

- 1** Participants willing to undertake tree planting after the event was higher than those who were already undertaking such initiative (85.9% vs 59.0%).
- 2** Participants who segregated waste at home before the event was lower than those willing to segregate waste at home after the event (12.8% vs 30.8%).
- 3** More of the participants after the event were willing to avoid indiscriminate disposal of waste (67.9% vs 56.4%).
- 4** A higher percentage of the participants indicated their willingness to save water after receiving the training during the Climate Diplomacy Week (67.9% vs 60.3%).
- 5** Less of the participants were willing to take actions to prevent food wastage after the event (56.4% vs 52.6%).
- 6** Prior to event, participants switching off their lights when not in use was higher than participants willing to practice such habits after the event (48.7% vs 29.7%).
- 7** More of the participants were willing to stop the habit of open defecation after the training (61.5% vs 44.9%).
- 8** Majority (65.4%), (69.2%) and (71.8%) of the participants viewed the presentation of the materials used for the training, speaker/ facilitator and amount of the new information learnt during the training as excellent respectively.

Based on the above outcome, REGIG is recommending a comprehensive research to determine and document current climate actions undertaken by students or community members to inform subsequent programs on climate change.

ABOUT REGIG

The Research and Grant Institute of Ghana (REGIG) is an independent, non-governmental, not-for-profit organization, dedicated to research generation, dissemination, advocacy and community engagement in Ghana towards the attainment of the Sustainable Development Goals (SDGs). The REGIG is committed to partnering with national, regional and international institutions, organizations, and agencies to stimulate, facilitate, demand, and celebrate the highest standard of excellence in research in Ghana. REGIG has been building the capacity of the research community to undertake and also communicate research findings relating to the SDGs especially in areas of climate change and environment environmental sustainability. REGIG has placed emphasis on research as an area which is critical to developing suitable metrics to evaluate progress on each SDGs, establish feasible monitoring mechanisms, as well as standardize and verify the accuracy of data pertaining to the SDGs. Some of active programs of REGIG currently ongoing are;

- A postgraduate Research Grant Scheme has been initiated to support postgraduate students' research projects on SDGs in Ghana. The Scheme is aimed at supporting postgraduate students to strengthen their positions in the research arena, develop competitive track records in research, and to build a pipeline of dedicated and vibrant researchers to successfully takeover the research into SGDs from the ageing researchers in Ghanaian universities and research institutions.
- Research Communication program has been instituted to help students and the research community in general to develop the skills of communicating their research projects in simple, non-technical language appropriate to non-scientific audience.
- SDGs Research-Based Award has been instituted to recognize and award postgraduate students who have researched excellently into the SDGs. It also aimed at encouraging the entire research community to engage in SDGs-based research.
- An SDG ambassadorial program has been rolled out to mobilize students to undertake community engagement activities in communities with the aim of changing some practices.
- The Ghana Exit Poll Program (GEPP) has been embarked on with the aim of providing comprehensive, nationally representative data to facilitate political analysis and socioeconomic policy decision making processes.

Other programs under consideration for implementation include;

- Strengthening Parliamentary democracy through research and capacity building.
- Strengthening the development and sustainability of Small Scale Industries in Ghana through research and capacity building.

INTRODUCTION

Climate change is not a new phenomenon. Environmentalists have impressively warned countries about the extent to which human activities such as housing, poor waste management, mining and agricultural activities are contributing to climate change. This change is evident in different domains, including global warming and flooding. Given the unprecedented rate of climate change, there are serious concerns that we shall tip many of the planetary boundaries and we will soon get into serious troubles that may ostensibly threaten human existence.

The alarming rates and intensity of natural disasters aptly illustrate the prevailing concern about climate. More importantly, there is the pressing need for the global community to take concrete and immediate steps to reverse the worsening climate change. Doing so calls for climate actions at the level of individuals, households, communities and countries. It is through this collective approach that any meaning progress can be made to mitigate, adapt and ensure economic prosperity, social inclusion and environmental sustainability.

The RegreeningGhana program organized by the EU Delegation to Ghana under the auspices of the European Union Climate Diplomacy Week was in direct response to the numerous calls for collective approach to addressing climate change. The program was organized at Ghana's largest cities, Accra and Kumasi, from 25th September to 3rd October, 2019. The core activities undertaken during the program to create awareness on the impact of climate change and induce positive behavioural tendencies toward sustainable environment were;



Tree planting exercise



Workshop for students



- **Beach cleaning exercise**
- **Round table discussion**

The Research and Grant Institute of Ghana (REGIG), one of the sponsors of the RegreeningGhana project, conducted an assessment to gauge the overall impact of the project. The key and major findings of the impact assessment are summarized in this report.

METHODOLOGY

Data were collected from a total of 78 participants, comprising 57 Junior High School (JHS) pupils selected from Accra and 21 Senior High School (SHS) and tertiary students from a workshop in Kumasi. Five out of 8 basic schools were purposively selected in the Accra. The 78 participants were among those who directly received training on climate change and participated in the various workshops and activities designed for the RegreeningGhana project. Data were collected questionnaires that were developed in consultation with the literature and experts in climate change. The items on the questionnaire typically assessed certain behavioural tendencies before the RegreeningGhana project and after the project. The questionnaires were administered to the participants by research officers who have received training in data collection and management.

The questionnaires were administered immediately after the training and the questionnaires taken back after completion. In the Ashanti Region, research officers administered the questionnaire to students who attended the event after training workshop on “Regreening our future”. All ethical issues relating to research with human participants, including confidentiality, anonymity and protection from harm were strictly adhered to.

RESULTS & INTERPRETATION

This section contains the summary and interpretation of the study findings and is organized based on the thematic areas contained in the questionnaire.

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

This subsection provides a description of the demographic characteristics of the participants, notably age, sex and level of study.

Age distribution

The average age of the participants was 16 years. The minimum age recorded was 12 years, whereas the maximum age was 36 years. We dichotomized the participants based on their; those aged from 12 to 16 years and those aged 17 years and above. The number of participants in each age category is summarized in Figure 1. As can be seen, majority of the participants were aged from 12 to 16 years (n = 57, 73.1%).

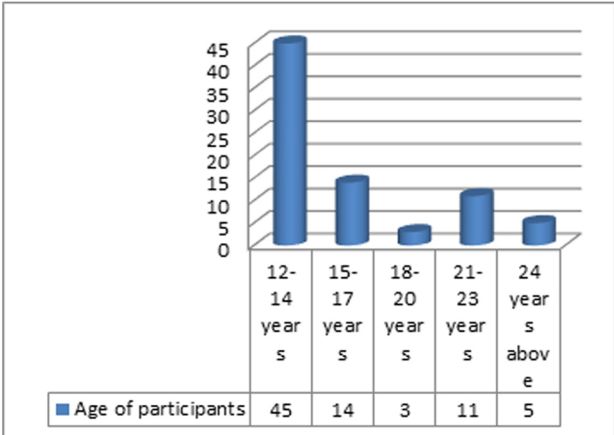


Figure 1: Age of Participants

Sex of Participants

The sex distribution of the sample is summarized in Figure 2. The result shows that majority of the participants (n=45, 57.7%) were males.

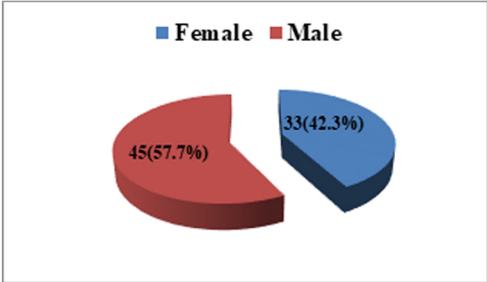


Figure 2: Sex of Participants

Level of Study

As noted previously, data were collected from JHS, SHS and university students. The number of student in each level is summarized in Figure 3. It can be seen that the participants were distributed across different educational levels. However, majority of the participants were from JHS, followed by SHS (n = 28, 35.9%).

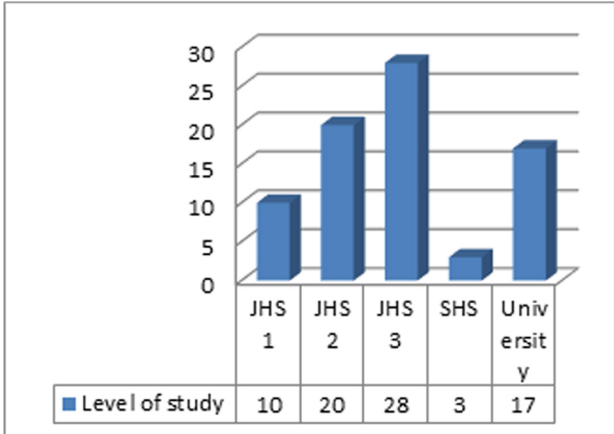


Figure 3: Level of Study

TREE PLANTING

Tree planting is regarded as the most important climate action. Tree density has a direct relationship with the amount of carbon dioxide (CO₂) in the atmosphere. CO₂ is a known greenhouse gas and the single most important gas that causes atmospheric temperatures to rise. CO₂ is however used by plants in photosynthesis hence high tree density reduces CO₂ in the atmosphere. In a nutshell, tree density is directly proportional to atmospheric CO₂. Apart from the aforementioned benefits, trees branches and leaves provide the needed cover during heavy rains, reducing the direct impact of heavy rains on the ground, thereby minimizing the likelihood of flooding. Thus, tree covers serve to mitigate the negative impact of what otherwise will be flooding.

Initiative to Plant Tree

Given the benefits of tree planting, we assessed tree planting initiatives of participants and the result is summarized in Figure 4.

The result shows that about two-third (n=67, 85.9%) of the participants were willing to undertake tree planting after the event. This was a jump from 46 (59.0%) who were already undertaking such initiative. This shows a positive impact of the project on tree planting.

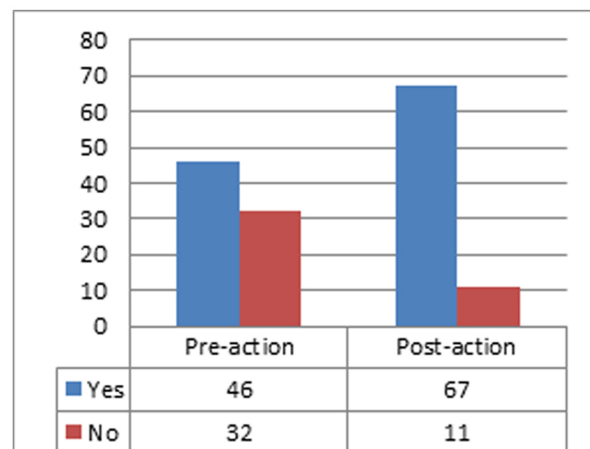


Figure 4: Tree planting initiative

WASTE SEGREGATION

One of the indicators Ghana has not done too well is the area of waste management. Ghana failed to achieve its Millennium Development Goals targets for good sanitation and is currently lacking behind when it comes to progress towards achieving the SDG targets for sanitation (SDG 6). Waste segregation has direct impact on climate change. When waste is segregated, there is a direct reduction on the dependence on the earth's natural resources. Ab initio, segregating waste leads to reduction, reuse and recycling of some materials creating less demand for such items. Moreover, reducing, reusing or recycling waste indirectly reduces greenhouse gases which could have created during mass production of such items.

Waste Segregation Initiative

The results of the waste segregation initiative of participants are summarized in Figure 5. As can be seen, 10(12.8%) of the participants indicated they segregated their waste at home prior to receiving training at the RegreeningGhana event. Refreshingly, 24(30.8%) were now willing to undertake waste segregation at home following their participation in the project. This represents over 100% increase in the number of participants who positively impacted by the program.

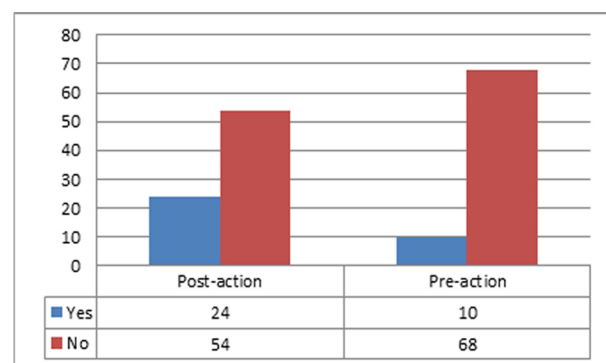


Figure 5: Waste segregation initiative

Initiative to Save Water

Consistent with previous findings, Figure 7 shows that more participants are willing to save water after the project, compared to before. More specifically 47(60.3%) took steps to save water at home prior to the training program. After the training, a higher number, (n = 53, 67.9%) were willing to take steps to save water at home.

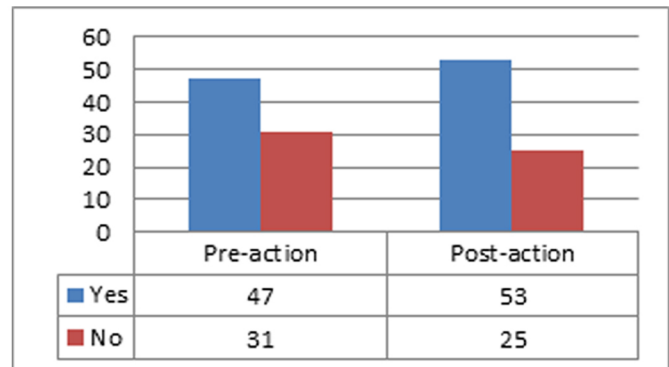


Figure 7: Water saving initiative

FOOD WASTE

When we waste food, it has negative consequences for the environment. According a report by the U.N. Food and Agriculture Organization, food waste is responsible for about 8% of all global greenhouse gas emission. Wasting food implies that all the energy used in its production (i.e. farm machinery, water usage, processing of foods and so on) is wasted. Moreover, when we allow food to decay on landfill site, it releases methane gas which is a greenhouse gas, 28 times more potent than even carbon dioxide.

Initiative to Reduce Food Waste

As shown in figure 8, 44(56.4%) were already taking actions to prevent food wastage prior to the training. On a downward trajectory, few numbers, 41(52.6%) were willing to take actions to prevent food wastage after the event.

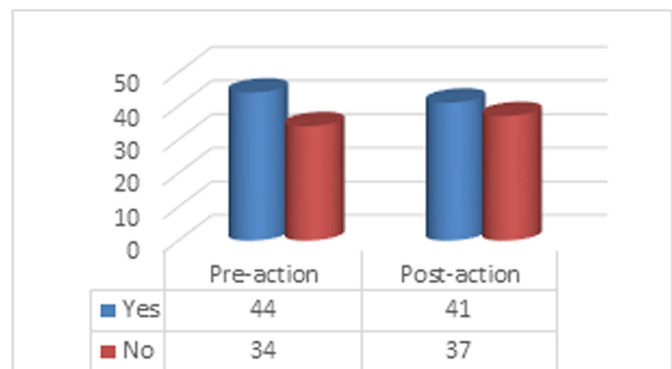


Figure 8: Participants initiative to reduce food waste

SWITCHING OFF LIGHT

Saving energy is critical to combat climate change. Reducing our energy demand from electricity implies a reduction in its production thereby reducing the carbon emission from industrial machine. In Ghana, 80% of our energy demand comes from power turbine which uses crude and gas. These machines emit carbon dioxide into the atmosphere in their production phase. When we take personal action to cut down on electricity demand, there will be a direct reduction in carbon emission into the atmosphere via reduced production.

Light Switching off Behaviour

The figure shows that 38(48.7%) were switching off their lights when not in use as a way of conserving energy prior to the training. Fewer numbers, 23(29.7%), after the training, were however willing to switch off their light as a way of conserving energy.

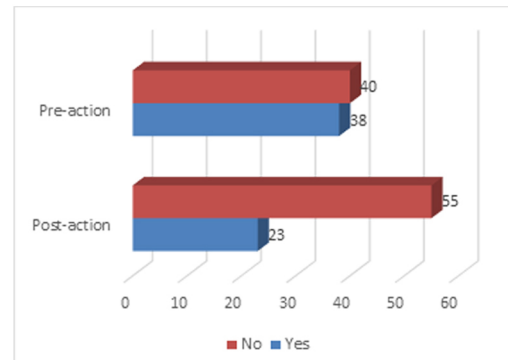


Fig 8: Participants initiative to conserve energy

AVOID OPEN DEFECTION

In Ghana, open defecation is common on our beaches. This result in poor sanitary conditions in these areas exacerbating the amount of energy spent to clean these beaches. Apart from negative health effect of open defecation, in an era where climate change is influencing weather patterns and exacerbating extreme weather conditions, sustainable habits such as avoiding open defecation are critical for low income earners as such habits become a resilience strategy to combat aftermath of disasters such as floods and cyclone which behind poor sanitary conditions.

Initiative to Avoid Open Defecation

The figure above shows that less than half (n=35, 44.9%) of the participants were avoiding open defecation prior to the training. On an upward trajectory, over half (n=48, 61.5%) were willing to avoid open defecation after undergoing the training.

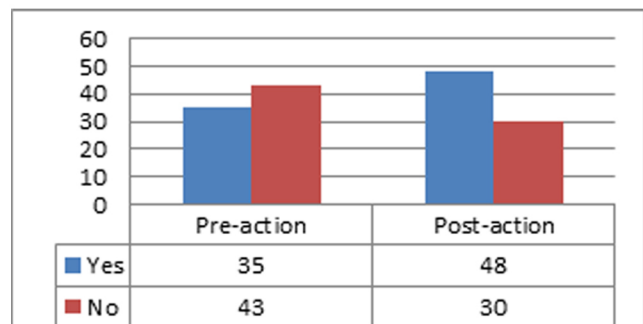


Fig 9: Participants willingness to avoid open defecation

Frequency of Climatic Actions

Analysis was done to assess the number of times participants were taking actions as analysed in figures 4 to 9 and number of times they were willing to take after the training. As observed from the figure above, about one third of the participants were taking climate actions once to twice a week. However, after the training, a lesser number were willing to continue to take actions just once to twice a week. Moreover, the number of people who were willing to climate actions three times and more after to the trading was higher than those who took actions prior to the training (n=56, 71.8% vs n=64, 82.1%)

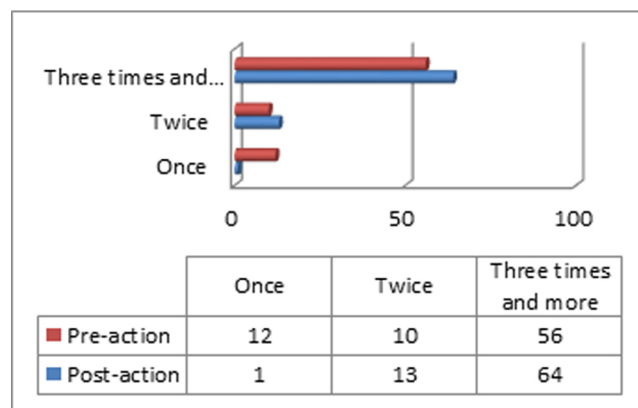


Figure 10: Frequency of climate actions

Initiative to Reduce Food Waste

With respect to the overall rating of the training program, more than half of the participants view the training as excellent. This was evident when 54(69.2%) indicated that the speaker/ facilitator was excellent as his or her delivery. Again, 51(65.4%) indicated that the materials used for the training was excellent as well its usefulness. Majority (n=56, 71.8 %) also viewed the amount of the new information learnt during the training as excellent. Finally, 42(53.8%) indicated that their expectations were met during the training.

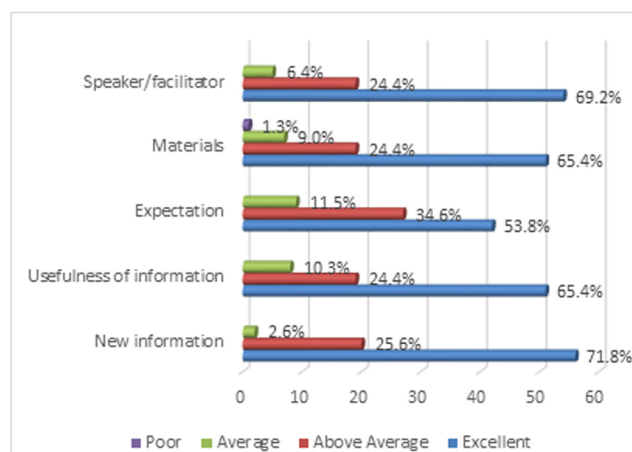


Figure 11: Rating of the training program by participants

BRIEF COMMENTARIES ON THE FINDINGS

Generally, the findings showed a positive impact of the program on behaviours of participants. This outcome signals a direct increase in knowledge on the importance of trees planting as a mitigating strategy to combat climate change. Similar positive result was observed for other climate actions such as segregate waste avoiding indiscriminate disposal, water saving and stopping the habit of open defecation. The likely consequences of the aforementioned outcome are increase in the number and areas of climate actions which are going to be taken after the event.

Despite the aforementioned positive feedback, there were negative feedbacks on some climate actions. Less of the participants were willing to take actions to prevent food wastage and switching off their lights when not in use after the event. These negative outcomes may have been due to lack of information or emphasis placed in these areas during the Climate Diplomacy Week. Some of the participants may have thought such climate actions were not necessary.

There was a positive rating of the entire program by majority of the participants. Majority of them felt the training, speaker/ facilitator and amount of the new information learnt during the training were excellent.

RECOMMENDATIONS

- 1 A comprehensive research is required to determine and document current climate actions undertaken by students or community members to inform subsequent programs on climate change.
- 2 There should be follow-up research to explicate the medium and long term impact of the program, including personal actions undertaken by the students to combat climate change.
- 3 In addition to tree planting exercise, subsequent events on climate change should be holistic, encompassing training sessions for participants on personal actions such as waste segregation, water conservation and energy saving that are likely to impact on climate change.

ANNEX

European Union Climate Diplomacy Week Ghana 2019 Program Assessment Form

SECTION A: DEMOGRAPHIC CHARACTERISTICS

- 1. State your age.....
- 2. Sex? a. Male [] b. Female []
- 3. Level? a. JHS 1 [] b. JHS 2 [] c. JHS 3 [] d. Other (specify).....

4. Before today's event, which of these climate actions did you take (you can tick more than once)

- a. I didn't take any action []
- b. tree planting/ household gardening []
- c. Household segregation/recycling (household)
- d. Water saving (household) []
- e. Reduce food waste []
- f. Avoiding indiscriminate disposal of waste []
- g. Avoiding open defecation []
- h. Switching off light/ electrical gadget when not in use?
- i. Other (specify).....

5. If you took climate actions, how many times were you taking in week?

- a. Once []
- b. Twice []
- c. Three times []
- d. More than three times []
- e. Every other day []

6. After this event, which of these climate actions do you intend take (you can tick more than once)

- a. I won't take any action []
- b. Tree planting/ household gardening []
- c. Household segregation/recycling (household)
- d. Water saving (household) []
- e. Reduce food waste []
- f. Avoiding indiscriminate disposal of waste []
- g. Avoiding open defecation []
- h. Switching off light/ electrical gadget when not in use?
- i. Other (specify).....

7. If you intend to take any climate actions, how many climate actions do you intend to take in a week?

- a. Once []
- b. Twice []
- c. Three times []
- d. More than three times []
- e. Every other day []

SECTION B: SATISFACTION WITH THE EVENT

Please rate this session by ticking the one which is most applicable to you;

8. How you would rate the amount of new information you have learnt?

- a. Excellent []
- b. Above Average []
- c. Average []
- d. Below average []
- e. Poor []

9. How do you rate the usefulness of information relative to changing a behavior you were previously engaged in?

- a. Excellent []
- b. Above Average []
- c. Average []
- d. Below average []
- e. Poor []

10. How would you rate the session in terms of meeting your expectation?

- a. Excellent []
- b. Above Average []
- c. Average []
- d. Below average []
- e. Poor []

11. How would you rate the materials presented?

- a. Excellent []
- b. Above Average []
- c. Average []
- d. Below average []
- e. Poor []

12. How would you rate speakers' presentation skills?

- a. Excellent []
- b. Above Average []
- c. Average []
- d. Below average []
- e. Poor []

Additional comment

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