Using a deliberation-based strategy to enhance the EFL pre-master candidates’ 21st century learning skills

Taher Mohammad Al-Hadi
Faculty of Education, Ismailia, Suez Canal University

Abstract:
The current study aimed at using a deliberation-based strategy for enhancing the 21st century skills of EFL pre-master candidates (n=6), since such participants can contribute much to their teaching career. Besides, they are more able to disseminate the 21st century culture among their learners. The study was quasi-experimental of pre/post one group design. The literature review presented a theoretical background on deliberation, the relationship between deliberation, the 21st century skills and EFL education, and why deliberation is specifically for developing the 4 C’s: communication, critical thinking, collaborative dialog and creativity. This helped to identify the rationale of the study and its aims. Besides, it helped to well select the issues/problems for practicing deliberation, and the activities to be used and above all the sequence of the strategy proposed. The study instruments were 4 tests for the 4C’s, which were pre/post administered to the study participants. Means, standard deviations, T-tests, and effect sizes were computed to verify whether the study questions were answered. The study results indicate that the deliberation-based strategy was effective in developing the participants’ 21st century skills. The results seem trustworthy and generalizable due to the close relationship discovered in the result interpretation between deliberation and the 21st century skills.

Keywords: 21st century skills, 4C’s, communication, critical thinking, collaborative dialog, creativity, deliberation

Introduction
Today’s education system faces irrelevance unless —we bridge the gap between how students live and how they learn, Partnership for 21st century skills, 2003 as cited in Gibson-Cayouette (2010, p.35). This is why students are prepared to succeed in the 21st century. But how the 21st century learning is measured, becomes the question. Departing from Gardner’s (2006) call as cited in Fox (2011, p.7) that the most important 21st century skill that we can teach our students is “the habit of continuous learning”, such a global skill cannot be easily acquired, but by the supporting skills mirrored in communication, collaboration, critical thinking and creativity in order to respond to the requirements for living in the 21st century. The EFL Teacher Education Program is believed to take this responsibility where qualified teachers mastering EFL skills are to disseminate the culture of positive communication and collaborative dialoging paving the way towards critical thinking to take reasoned
decisions and to solve problems creatively. Therefore, a deliberation-based setting, where deliberative processes focus on the participation of individuals (EFL candidates in our context) of different views and perspectives, but with shared concerns, seems effective for building bridges between those different views and perspectives leading to research-based decision making, and knowledge-based problem solving.

Theoretical Background

Deliberation:

Deliberation can be seen from different perspectives. Gauvin (2011) sees it as the critical examination of an issue involving the weighing of reasons for and against a course of action. This means that such deliberation should be in a group where each individual is engaged in receiving and exchanging information, critically examining an issue, and having his own share in coming to an agreement which will inform decision making afterwards. Louisville (2010) is thought to define deliberation in light of its sub-processes taking place or the procedures followed: (a) Learning the concerns people have about an issue, (b) Identifying the consequences, costs, and benefits associated with various approaches, (c) Exhibiting a willingness to examine all sides of possible choices, (d) Working through the inherent conflicts, and (e) Finding a shared sense of direction or common ground for public action. Deliberation is considered as face-to-face communication in Patterson’s (2008) view. He thinks that there is what is called a mediated cultural dialog between and among citizens for addressing the issues of democracy and equality.

Many researchers (e.g., Escobar, 2016; Faulkner, 2011; Gastil, 2008; Hoppe, 2011a & 2011b; Innes and Booher, 2010; Kanra, 2012; Pieczka and Escobar, 2010; Zaleski, 2016) tackle deliberation as a communicative process having sub-processes that take place in the deliberative context or between and among the participants sharing the deliberative dialog for reaching a decisive problem resolution or a well-reflected decision. Bohman (1996) as cited in Escobar (2016) – for example – sees public deliberation as the “process of exchanging reasons for the purpose of resolving problematic situations’ that require interpersonal coordination and cooperation” (34), whereas Gastil (2008) holds the belief that the act
of deliberation is the act of reflecting carefully on a matter and weighing the strengths and weaknesses of alternative solutions to a problem. It aims to arrive at a decision or judgment based not only on facts and data, but also on values, emotions, and other less technical considerations.

From a pedagogical point of view, deliberative discussion can be a teaching strategy developed for involving participants in a shared inquiry regarding public issues resulting in enhancing different skills. This is because “deliberation is the art of analyzing alternatives in order to make decisions”, Escobar (2016, p.42). In such a setting, participants work – not for scoring points – but for reaching the target collaboratively.

Within deliberative communication, each participant “takes a stand by listening, deliberating, seeking arguments, and evaluating, while at the same time there is a collective effort to find values and norms on which everyone can agree”, Englund (2006) as cited in Stitzlein (2010, p. 5).

In order for reaching sound, objective and logical decision and/or finding a collaborative feasible solution for the issue under investigation, Escobar (2016, p. 34) sets six qualities of public deliberation:

1. Seeking information and evidence.
2. Evaluating alternatives.
3. Giving (and taking) public reasons.
4. Re-examining and (perhaps) changing preferences.
5. Seeking agreement and consensus.
6. Making informed and reasoned decisions.

Because all deliberations can be reflective in some sense, the ones taking place in teacher education programs are necessarily seen to solidify and justify the way the views are shaped, why alternative perspectives are weighted and how actions are activated and what type of quality of decisions is made and how the targeted problems solved. For those and some others, deliberation seems to accomplish varied objectives:

1. Deliberation tests out the “meanings” of our present impulses and intentions, (Dorstewitz, 2008).
2. Deliberation promotes not only conciliation between the various actors affected by a policy, the emergence of an informed and
engaged public, and the taking into account of the public’s perspective, but also transparency, legitimacy and accountability in decision making, (Sintomer and Blondiaux, 2002; Lomas et al., 2005, as cited in Gauvin (2011, p.1).

3. Deliberation allows for the co-production and co-interpretation of research, while taking into account the decisional context (Abelson et al., 2003).

4. Deliberation can be used to solve problems, make decisions, produce recommendations, identify choices, and develop action plans. (National Coalition for Dialogue and Deliberation, 2016).

5. Deliberation contributes to knowledge by adding more pieces. With more people present who have different knowledge, the total knowledge of the group - and consequently any decision the group makes – is enhanced, (Patterson, 2008, p.5).

6. Deliberation may increase individual familiarity with legitimate arguments underlying own and opposing perspectives (Wojcieszak, 2008, p.13).


8. When deliberation is an educational process, it “encourages in-depth analysis and examination of complex issues, researching a variety of sources, and reflecting on other areas of knowledge. Deliberative education equips students with the desire to critically analyze, evaluate and respond to a variety of issues in their adult lives and assists them in becoming engaged and informed citizens”, (Zaleski, 2016, p.25).

The latest attempt – to the best knowledge of the researcher - to inject deliberation in education is done by the International Debate Education Association (IDEA) in 2004, and reported by Zaleski (2016). That attempt was molded in a three-year project under Socrates Comenius 2.1 Program - Deliberation Across the Curriculum (DAC). IDEA implemented the project together with the Estonian Debating Society, Informal Education Debate Center, Lithuania and “Za in proti” Zavod za kulturo dialoga (ZIP) Slovenia. The project was directed at teachers of
different courses including teachers of languages (mother tongue and a second language), and students attending secondary schools in partner countries. The project revolves round what is called deliberative education which – according to Zaleski (2016) – “is a process that employs speech, communication, discussion and debate in the classroom in order to maximize students’ participation in the learning process. Through redefining the role of a teacher in the educational process and confronting students with new tasks, deliberative methodologies aim at engaging students in the subject matter (providing an incentive to learn), assisting them in the process of operationalization and application of knowledge, developing an array of skills (critical thinking, decision making, communication), and providing them with greater ability to adopt to the fast changing realities of the modern world…Deliberative education is a modern and innovative approach in educational practice and it effectively meets a number of educational goals,” (p.24).

The 21st century skills (4C’s):

The global aim of education must be preparing students for living, learning, and working in the future. Therefore, the 4C’s (Communication, Collaborative dialog, Critical thinking and Creativity) are widely believed to accomplish that aim. Research on the 21st century (e.g., Chen, 2008; Fisher, 2014; Gibson-Cayouette, 2010; Synyard, 2010) sheds light mainly on how we educate students, rather than how much we educate them. No one knows what would happen in the future because it is uncertain; but one can predict. Preparing students for the future, therefore, necessitates to blend content knowledge and process skills in order to develop understandings, intellectual growth, and exploration of the learner, and to develop students’ transfer skills for applying their learning to new and unfamiliar situations. Besides, producing positive change in the students’ communities is, therefore, subject to exist. The development of critical thinking skills – as one of the intended skills in the 21st century – for example, prepares students for challenging unexpected problems or even adapting to mere new encounters. Such skills can drive students to be more curious to communicate and collaborate to find creative solutions. This view might have triggered Friedman (2005) as cited in Fox (2011, p.44) to define a successful 21st Century learner –“CQ + PQ
> IQ” -- the curiosity quotient plus the passion quotient, and is more important to the learner than the intelligence quotient.

No one can do the job on one’s own. Partnership with cooperative, collaborative work must be there, for partnership indicates that the future will demand people to express themselves effectively, solve real world problems that require processing and analysis of high digit numbers, evaluate information for accuracy, reliability, and validity; and organize information into valuable knowledge, The Partnership for 21st Century Skills (2007) as cited in Chen (2008, p. 11).

The relationship between deliberation, the 21st century skills and EFL education:

The assumption exists that the 21st century skills (4C’s) when combined with deliberation enhance learning. Hence, if co-existence of those 4C’s within a deliberative context is to be implemented, the question is how many skills and how much deliberation should be included. The immediate answer can be that the 4C’s should act as cognitive tools to engage the participants in learning, rather than being involved in lecturing. From an interaction perspective, collaborative dialogue is a “dialogue in which speakers are engaged in problem-solving and knowledge building” (Swain: 2000, p.102) and Khodamoradi, Iravani, and Jafarigohar (2013, p.343)

When the collaborative dialog exists in a deliberation-based context, it can be mind-extending or a catalyzing tool for volitional learners and autonomous problem solvers. Since it provides stimulating and facilitating cognitive structures in order promote meaning construction in a non-threatening atmosphere, it can, therefore, raise voluntary critical awareness of a deeper understanding of the issue at hand. For clarifying the close relationship between dialog and deliberation, Escobar (2016) suggests that both of them are interrelated and integrated processes, where dialog is the process of inquiry dynamics (exploring and learning, co-creating shared meaning, building understanding and relationship), and deliberation is the process of advocacy dynamics (exchanging public reasons, weighting alternatives, making decisions).

Emphasizing the role of deliberation in developing some higher order thinking skills that might be required for the 21st century, Gooden and
Stein (2008) conducted a study on the use of deliberative discussion to enhance the critical thinking abilities of nursing students. They concluded their study stating that, “educators are ultimately responsible to engage students in learning activities that promote critical thought. Students’ abilities to critically think could be nurtured and fostered throughout their educational experience if they have repeated opportunities to practice critical thinking. Students who practice to critically think may increase the likelihood that their critical thinking abilities might change over time. Therefore, growth in critical thinking is a possibility and the incorporation of teaching strategies such as the deliberative discussion method throughout the curriculum may help to foster this positive development in thinking among students. Investigation into students’ participation in many deliberative discussions over an academic year may give educators a better idea of its full impact on critical thinking” (p.14).

In another study entitled Deliberative Democracy in Teacher Education, Stitzlein (2010) stresses that “teacher education programs that adopt deliberative democracy as their guiding framework are likely to instill civic knowledge and virtues. These will not only serve the current world through producing active, informed and engaged citizens, but also will lead to a generation of teachers who cultivate the same characteristics in the children of America” (p.16).

In the same line of thought, the University of Pittsburgh (2008) launched a series of seminars labeled Speaking in the Disciplines. One of them revolved around Benefits of Teaching Argument and Deliberation stressing that deliberation is a teaching strategy that improves many skills. Among them are: (a) promoting active learning where the incorporation of student voices through deliberation provides an exciting opportunity for students to involve themselves in their own education, (b) enhancing communication where deliberation is an inherently communicative exercise, as opinions based on knowledge are shared with group members. Students must develop the ability to express their own opinions to other group members while remaining sensitive to others’ experiences to form collective judgment, (c) facilitating social interaction where deliberation relies on teamwork instead of individual effort. Students must learn how to respect each other’s opinion while simultaneously pushing the boundaries of each other’s experience. This
small group work provides students with cooperative skills. Students learn to respond to diversity in opinion and resolve conflicts, both of which are important in a society marked by difference, and (d) inventing new modes of thinking where deliberation encourages innovation and invention of new ideas and solutions. Conversation and reflection challenge students’ opinions and encourage a synthesis of analysis, criteria, and judgment that often reveals new and unique approaches. Diversity of experience is a strength that encourages a wide variety of alternatives to be proposed and evaluated. Students often create new self-understandings as they listen to other experiences. This process can be crucial to generating individual and collective knowledge and forming nuanced opinions on critical issues...

To other researchers (e.g., Center for the Study of Global Change, 2013), deliberation is an analytical tool for encouraging students to identify, navigate, and engage multiple perspectives, sharpening active critical thinking skills, and adding diversity and creativity to classroom instruction. Additionally, the skills gained through deliberation are transferable to many situations outside of the classroom, including real-life civic engagement and the professional world.

**Why deliberation for the 4C’s:**

In his Explaining Creativity: The Source of Human Innovation, Sawyer (2012) explained the rational view of creativity. He took the belief that creativity is generated by the conscious, deliberating, intelligent, rational mind. By this, he might see creativity can be judged by how the imagination is emerged, how ideas are assembled in an innovative way and how the judgment given for whether the creative outcome is feasible. In the same vein, Zaleski (2016) sees that because conscious thought operates at a significantly slower speed than unconscious thought longer duration of conscious deliberation may be beneficial to creativity performance. Therefore, the creative output of unconscious deliberation is likely to be superior to that of conscious deliberation only when deliberation duration is moderate.

Dorstewitz (2008) treats imagination as a central aspect of deliberation since deliberation is a dramatic and active process where impulses and
intentions motivates action, whereas imagination is the pith of creativity and the essence of innovation. At the same time, imagination can visualize alternatives, harmonize the wandering thoughts and calculate reasons behind the outcomes that the deliberative process produces. When individuals in deliberative settings search for shared views, a logical link between their varied positions, or even some cognitive skills oriented towards problem solving and/or decision making, they might develop a sense of consistency in their dealings with the issues at hand. That consistency is understood by Kanra (2012) as the logical link between positions individuals develop during deliberation and the cognitive skills they choose to evaluate these positions. In this sense, participants apply different logic, hence cognitive skills, to the different stages of deliberation, which in terms of their aim and their orientation can be conceptualized in two distinct categories: social learning and decision making. At the same time, deliberative education is based on a democratic dialogue between teachers and students that opens the student up with a new way of thinking and allows independent study, problem solving, and free expression of ideas while encouraging the creativity of teachers, Zaleski (2016, p. 24). The standards for teachers include: facilitating and inspiring student learning and creativity, (Atkinson-collier, 2015).

Stressing the same idea that students engaged in a deliberative dialog are usually inspired by others’ views, though they might be conflicting, they are able – sometime – to get convinced they can share, cooperate and collaborate to reach a consensus on or an understanding of the issue in hand. This process can be called the binary deliberation, referred to by Eggins et al. (2002) as cited in Kanra (2012). Supporting their claim, they stress that research in social psychology indicates that reaching an understanding between conflicting parties is most likely to be successful when the process serves as a forum in which the parties are fully satisfied with the level that they are allowed to express themselves.

In the effort to advance deliberative learning opportunities, the International Society for Technology in Education (ISTE) (2007) sets some standards for the 21st century. As for Creativity and Innovation, twenty first century skills students should possess in order to develop
original products, generate original ideas, explore complex systems, and forecast possibilities using technology. For *Communication and Collaboration*, twenty first century skills students should possess in order to “contribute to the learning of others” in diverse learning environments. But concerning *Critical Thinking, Problem Solving, and Decision Making*, twenty first century skills students should possess to make decisions when using technology to plan, research, manage, and explore issues.

Having a wider view of the relationship between deliberative discussion and the 4C’s namely: communication, collaborative dialog, critical thinking and creativity, the researcher can see the first two are mainly processes while the last two are mainly products. More clearly, not all communicative acts are dialogic, and not all dialogs are collaborative. Therefore, both communication and collaboration constitute the processes of the deliberative discussion. On the other hand, based on disputable issues delivered in a deliberation-based discussion, critical thinking may be the outcome. And since critical thinking cannot take place in vacuum nor it exists from the scratch, it should be triggered by some sort of discussion, which might be argumentative or deliberative in most cases. And stressing that critical thinking is a process of an inner discussion or inquiry searching for meaningfulness of that process, it should, then, lead to something new, thus creativity becomes the product.

**Context of the study problem**

Having assigned teaching two courses to the EFL master of education candidates during the first semester of the academic year 2015/2016, the researcher conducted an unstructured interview with those candidates on the 21st century skills, the issue that is internationally known as the talk of the day in nearly all academic meetings, seminars, forums and conferences. Surprisingly, none of them could not define those skills, and as a consequence, did not know how to develop them in an EFL setting. Conducting a study in a deliberation-based context is believed to enhance EFL master of education candidates’ 21st century learning skills owing to the fact that they are mature enough, reasonably informed in EFL, and
might be well able to lead the change in their classes via English as a global language.

**Problem of the Study:**

EFL pre-master of education candidates have deficiencies in the 4C’s, the 21st century skills.

**Study Questions:**

1. What are the 21st century skills globally seen to be developed?
2. How far do EFL pre-master of education candidates master the 21st century skills?
3. How can the 21st century skills be developed among the EFL pre-master of education candidates?
4. How far is a deliberation-based strategy effective in developing the EFL pre-master of education candidates?

**Method:**

**Participants**

Six EFL pre-master of education candidates at Ismailia Faculty of Education, Suez Canal University participated in this study. The rationale behind such a selection was that the study participants might all have been involved in some sort of deliberation about some social or political issues either in daily life or in some teaching contexts. Besides, Boven (2007) holds the view that small groups tend to generate well-thought out responses; and Freiberg & Driscoll's assertion (2000, p. 282) that "the five-person [or six to be divided into two groups] group is considered the smallest size for problem solving, with enough diversity of opinions or perspectives. The odd number of members facilitates decision making. This size group provides continued practice in group process, and even in brief time periods every student has an opportunity to express ideas."

**Instruments of the study**

Having reviewed the related literature and previous studies, the following instruments were developed by the researcher in order to achieve the aims of the study.

1. **A Critical Thinking Skills Test.** It consisted of FOUR situations for four sub-skills. It was given in a written form.
2. A Communication Skills Test. It depended upon the oral presentations delivered by the study participants. Five minutes were given to each participant. The presentations were recorded, transcribed on oral discourse analysis sheets, and then analyzed.

3. A Collaborative Dialog Skills Test. It consisted of 10-minute three dialogs. It was based on the dialogs taken place among the participants. The dialogs were recorded, transcribed on interaction analysis sheets, and then analyzed in light of the rubric developed for that purpose.

4. A Creativity Skills Test. It was based upon argumentative essay writing. It was validated using written discourse analysis sheets for assessing creativity.

These instruments were administered to a panel of jurors (n=5), and they proved to be valid and reliable (Coefficient Alpha Cronbach = 0.79).

Delimitations

The study was delimited to (1) Six EFL pre-master of education candidates at Ismailia Faculty of Education, Suez Canal University, (2) the 4C's, namely communication, collaborative dialog, critical thinking and creativity, since they are – to the best knowledge of the researcher – the most common in the educational context and the most frequently used by scholars, and (3) second term of the academic year 2015/2016.

Procedures

Two weeks after the beginning of the 1st semester of the academic year 2015/2016, the pre-tests (See Appendix A) of the 21st century skills (critical thinking, communication, collaborative dialog and creativity) were conducted. In a calm, relaxing setting, the strategy proposed was implemented for six weeks (See Appendix B for an overview of a deliberation-based strategy). Then, the post-tests were conducted with the steps shown in the instruments of the study section, immediately after concluding the intervention.

Results and Discussion

Data collection came in four ways, and directed by four main criteria (See Appendixes C, D, E and F respectively). The study participants’
scores for each skill of the four main ones were reported separately. Then, data were treated statistically using SPSS. Relevant means, standard deviations, t-values and effect sizes were computed in order to verify whether the questions of the study have been answered. The results obtained are represented below with their discussions.

Table 1

Means, standard deviations, t-values and effect sizes of the study participants’ (N=6) pre- and post-test on critical thinking skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Measures</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>Pre</td>
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<tr>
<td></td>
<td>Post</td>
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<td></td>
<td></td>
<td>Sig</td>
<td>High</td>
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<tr>
<td>CC</td>
<td>Pre</td>
<td>1.67</td>
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<tr>
<td></td>
<td>Post</td>
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<td>0.52</td>
<td></td>
<td></td>
<td>Sig.</td>
<td>High</td>
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<tr>
<td>CP</td>
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<td>0.63</td>
<td>-7.90</td>
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<td>0.001</td>
<td>0.926</td>
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<tr>
<td></td>
<td>Post</td>
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<td>0.74</td>
<td></td>
<td></td>
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<td>0.38</td>
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<td></td>
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Note. SP = Summarizes problem, question, or issue; CC = Considers context and assumptions; CP = Communicates own perspective, hypothesis, or position; AD = Analyzes supporting data and evidence; PP = Uses other perspectives and positions; AC = Assesses conclusions, implications, and consequences.

Table 1 presents the study participants’ mean scores, standard deviations and t-values for the differences between pre- and post-tests of critical thinking skills which are statistically significant at 0.01. Besides, the effect size of all sub-skills are high. This result emphasizes critical thinking skills development among the participants. Figure 1 depicts the differences, though they are rather different from pre-testing, they are fairly high post-testing.
An explanation of this result is that the participants might have thought of others’ views while they were thinking of theirs, regarding no sound solution for a problem without sharing perspectives, weighing different views after analyzing the data given, nor without considering the context of the problem investigated. The ability to think critically – to them - is a deliberate and active process. The study setting seemed to be like classrooms of the future that encourage “lively exchange of ideas” and open discussions. Further, the discussion of controversial issues in a deliberative way might have encouraged the participants to exploit the opportunity to practice and enhance critical thinking.

Figure 1. Study participants’ critical thinking skills development

Another possible explanation is that the non-threatening environment of the study with the idea of “eagerness to say, but …” might have helped them to be emotionally relaxed and got rid of all but’s hindering their critical thinking. They, therefore, tended to adopt deliberation that place problem solving in an especially dominant position overshadowing heated discussions or even what is called Argumentum Ad Hominem.

Only deliberative thought directly or indirectly related to reaching a settlement or a resolution for the issue at hand were seen to activate their critical thinking skills.
As for communication, the participants of the study could develop their communication sub-skills as the post-test mean scores indicate. Table 2 presents the results. Besides, they are represented graphically in Figure 1.

### Table 2

*Means, standard deviations, t-values and effect sizes of the study participants’ (N=6) pre- and post-test on communication skills*

<table>
<thead>
<tr>
<th>Skills</th>
<th>Measures</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig</th>
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<td>Organization</td>
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<tr>
<td></td>
<td>Post</td>
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<td>0.38</td>
<td></td>
<td></td>
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<tr>
<td>Presentation and delivery</td>
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<td>0.58</td>
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</tbody>
</table>

**Figure 2. Study participants’ communication skills development**

That result may be attributed to a strong, deep belief that deliberation is closely associated with communication. It cannot exist outside the communicative processes. Thus, when communicative processes are strong, deliberation tends to be strong and vice versa. When the study participants wanted to justify to each other their values, convictions, and goals in a non-threatening setting, they seem to have engaged in some
sort of productive communication sharing ideas, testing alternatives, and reaching reasoned judgment. They might have given up polarization for or against the issue under investigation, but kept objective and rational-critical deliberation arguing for resolving that issue. This view goes in parallel with Gastil’s (2016a, p.2), “When communication is not relevant to deliberation, it is frivolous or more often, in no need of careful study…when a single person has the authority to make a choice, the deliberation that precedes a decision involves many other people and many forms of communication. More commonly, what people mean by deliberation is talking to make decisions together as a small group, an organization, or a nation. Whether the decision maker is a single person or a collective body, it is equally useful to think of the communication process as deliberation leading toward a decision”.

Another interpretation is that development in the study participants’ collaborative dialog shown by Table 3 and depicted by Figure 3 provide an evidence that deliberation cannot do without deliberation. That is because concepts shared by deliberating parties should be clear, and they need an effective way to be transmitted to each other via a good linguistic channel. Thus, it is possible that they cooperate and collaborate in a way – dramatization or something else - that helps them to justify each other’s position. These productive circumstances might have formed appropriate conditions that nurtured the participants’ eagerness to deliberate willingly in a collaborative dialog to take a decision or to solve a problem.

Table 3

Means, standard deviations, t-values and effect sizes of the study participants’ (N=6) pre- and post-test on collaborative dialog skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Measures</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts</td>
<td>Pre</td>
<td>2.12</td>
<td>0.60</td>
<td>-9.01</td>
<td>5</td>
<td>0.000</td>
<td>Sig 0.942 High</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.92</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linguistic Usage</td>
<td>Pre</td>
<td>1.75</td>
<td>0.27</td>
<td>-13.69</td>
<td>5</td>
<td>0.000</td>
<td>Sig 0.974 High</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.25</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results here suggest that the participants might have transferred to be other players in new settings based on collaborative dialog in order to cope with public issues, to resolve disputes and settle discrepancies, and then to suggest innovative problem solutions. Such a dialog seems to be an alternative way of confrontation, conflict or even paralysis. Besides, the participants - as citizens – might have tried hard to produce powerful, positive dialoging that is personally and publicly satisfying seeking for replacing the actual traditional ways of solving problems with innovative, collaborative and transformative ways corresponding to the 21st century line of thought.

Another explanation of the developed collaborative dialog among the study participants is that they might have seen the dialog, not as any kind of spoken interaction, but as Escobar (2016) sees it as “a special kind of communicative relationship; the kind of relationship which broadens...
worldviews, reshapes perspectives, and speaks to both our cognitive and emotional capacities for our mutual engagement”(16). This result also seems to match Khodamoradi et. al.’s (2013) conclusion that “there is a knowledge threshold for optimum collaboration which the interlocutors should exceed if they want to mutually assist and scaffold each other’s performance,” (p.343).

Concerning the results related to the development of creativity skills, one can say that the clear objectives set, the social relations prevailed, higher order training given, and the serious issues raised might have contributed to the participants’ care to give the best of their ideas, or compete with each other to present challenging innovative solutions for the problems under investigation. Besides, the dominance of deliberation dialog in the study context might have made the issue at hand a personal issue for each participant.

Table 4 presents the study participants’ scores for creativity skills. The four sub-skills – ideas, development, coherence and plausibility - were significant, \( t = -19.37, -12.85, -16.43, -30.04 \) respectively, \( p < 0.01 \). Figure 4 depicts the results graphically highlighting the development of the creativity skills.

**Table 4**

*Means, standard deviations, t-values and effect sizes of the study participants’ (N=6) pre- and post-test on creativity skills*

<table>
<thead>
<tr>
<th>Skills</th>
<th>Measures</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas</td>
<td>Pre</td>
<td>2.42</td>
<td>0.58</td>
<td>-19.37</td>
<td>5</td>
<td>0.000</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.92</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Development</td>
<td>Pre</td>
<td>1.92</td>
<td>0.38</td>
<td>-12.85</td>
<td>5</td>
<td>0.000</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.67</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Coherence</td>
<td>Pre</td>
<td>1.75</td>
<td>0.27</td>
<td>-16.43</td>
<td>5</td>
<td>0.000</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.75</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Plausibility</td>
<td>Pre</td>
<td>1.42</td>
<td>0.20</td>
<td>-30.04</td>
<td>5</td>
<td>0.000</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>4.58</td>
<td>0.20</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>
One interpretation of this result is that in each creative process, there must be an opportunity for self-deliberation, binary deliberation or group deliberation. Whatever the type, the pre-conditions of creative processes are featured by imagination as well as rationalization. Dorsetwitz (2008) proposes, a view of rational deliberation where deliberation is a self-forming creative process of inquiry rather than a mechanical one. He treats imagination as a central aspect of deliberation since imagination – as it seems - is the generator of creativity.

Moreover, when the researcher provided the study participants with handouts of some authentic articles on national, regional as well as global issues, they might get used of them in handling both sides of an issue, weighting views and alternatives, using sound inferences, and/or appealing to the authorities concerned. Power Point presentations for panel discussions – on the other hand - might have showed them the technicalities and ethics of group discussions, how to exchange ideas, and how to convince or persuade others to reach the target. Audio and graphic material about some deliberative contexts also seem to have contributed to the effectiveness of deliberation as careful thought or discussion done in order to make a decision, emphasizing the use of logic and reason and working with participants’ burning issues, practical actions and new possibilities with regard to pressing life circumstances are as much a part of the conversation, as questioning established meanings and arriving at soulful insights into human values.
Conclusion

This brief analysis of the ideas underlying the interpretation of results is one example of how the 21st century learning skills can help the EFL pre-master candidates understand the issues or problems they face in their daily life, and understand how they affect (or are affected by) them positively or negatively. It also helps to see how much particular programs or teaching strategies contribute within a university teaching learning context. Whatever the relevance of the issues raised for the study participants, or the arguments practiced, or the strategy used, the participants were more deliberative, reflective and intentional about their practices. One more thing is that understanding the approach to EFL teacher education program is not enough with the content of the program or the teaching strategy used, but by all the factors concerned.
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