Assessing Less Tangible Simulation Aspects: International Collaborations on Facebook

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Abstract

While the assessment of classroom simulations in international studies has received growing attention, the evaluation of simulations and other types of collaborations in online classes is still relatively new, and it may be that the standard tools of testing for knowledge do not address the significance of the learning that takes place in online, international collaborations. And yet, as the opportunity for international collaborations increases in the online environment, it is essential that we find tools to assess how and what our students are learning. This paper presents research from two years of collaborative political role-playing simulations conducted by universities in the U.S. and Israel, from 2013-2014. In 2012 we used Facebook as a forum to run a synchronous and asynchronous simulation of Middle Eastern politics. Observation and post-simulation evaluations from 2012 revealed a complexity of outcomes, including emotional responses from students. How does emotion impact learning? In the spring of 2014 we conducted another simulation, this time evaluating the less tangible elements of the learning experience, such as attitudes and feelings about the experience. During the game participants had to cope with complex issues, acquire information, apply critical thinking, prioritize, practice tolerance, have personal views challenged. While the acquisition and retention of information is a desired outcome of simulations, the results from this study suggest that the less tangible, more emotional aspects could play a role in cognitive outcomes as well.

Introduction

This study focuses on the less tangible, and hence more difficult to assess aspects of simulations. We present a definition of assessment, look at the literature on the topic and review findings from student reflections on their simulation experience, immediately after they participated and one year later. The results are based on transatlantic simulations on the Arab-Israeli conflict conducted on Facebook between American and Israeli students in three campuses. The participants come from a graduate online program in international development, an

undergraduate communication seminar and graduate courses on international relations and methodology in political science.

The literature on simulations addresses the concepts of feedback, debriefing and assessment with overlap between these concepts. To clarify the way we use assessment, this study builds on a definition that regards assessment as the summing up activities in which the educator evaluates student performance, revisits simulation goals and evaluates the learning efficiency of the simulation project as a whole.[1] While grading students is commonly based on exams where students convey cognitive knowledge they have acquired, assessment the way we address it in this paper also covers other less tangible yet important aspects of affective and behavioral learning. The simulation provides students with an emotional experience along with operational practice of decision-making, media management and negotiations in world politics. During an online simulation we were conducting between U.S. and Israeli students in 2012, a U.S. graduate student contacted one of the authors with a very emotional email where he indicated grave concern for his Israeli friends (students in the simulation) who were under siege near the Israeli border with Gaza, indicating that before the collaborative simulation he never really thought about conflict in this region as real. This started us wondering about the emotional component to learning, and in this particular context, online learning in an international collaboration.

While the body of research literature on simulations and learning, which encompasses many disciplines, affirms that students learn when actively engaged in the material, and that role-playing simulations can be an efficient way to achieve this engagement, there has not been much consideration of the emotional element to this engagement. The field of psychology has researched and found connections between emotion and learning, though these are difficult to

evaluate and measure. It has been asserted that there is a clear difference between "cognitive and emotional domains of information-processing." (Samoilov, A. & Goldfried, M. (2006). Poorman (2002) used a tool developed in psychology called the Interpersonal Reactivity Index (Davis 80), having students role play characters with disorders to gain empathy for the patients that they would be interacting with, clearly a desired outcome in that field and profession. Empathy, however, in international studies, is also often a useful outcome as we want our students step out their own shoes into those of other actors, helping them to relinquish assumptions and misperceptions and learn about conflict from multiple perspectives.

The literature on role play simulations often uses words like feelings, enthusiasm, empathy, awareness, interest, motivation; and yet in dealing with assessment the research tends to emphasize the measurement of content knowledge or the acquisition of skills (Endersby & Webber, 1995; Galatas, 2006). Even with the assessment of content knowledge, however, the emotional factor is implied. In an assessment of a Middle East politics simulation it was noted that the experience of playing in a simulation generates enthusiasm amongst participants which enhances their learning of the material (Dougherty 2003). Motivation is often hailed as the main factor in student engagement, and the reason why simulations enhance learning, but the role of emotion is difficult to discern, since it is 'both a product of and an influence on motivation (Raymond & Usherwood, 2013). Omelicheva & Avdeyeva (2008) argued that "effective learning is impossible without engaging students' emotional side – their attitudes, feelings, preferences, and values." (p. 604) This research on active learning versus lectures where students simply received information focused on attitudes and changes in attitudes as a measure of how emotion can affect the learning process in heated debates on controversial topics. A recent study focusing on assessment of simulation outcomes broke the learning into three

domains, factual knowledge, conceptual knowledge, and metacognitive knowledge. (Pettenger et al, 2013) While the first two are the areas more often measured in simulation assessment, the last, which focuses on students' awareness of their own learning is unique, and lends itself to de-briefing and assessing emotional reactions. Chin et al (2009) in an extensive review of literature on simulations and gaming note that assessment must match the goals that were intended, and while further noting that simulations can change attitudes, they do not present any research on assessments that address this less tangible aspect of learning. They do argue that 'assessment should be viewed as a process and not a goal', which is useful for the study presented in this paper, as we are interested in the long terms effects of the experience.

The literature on simulation assessment in political science, international studies and gaming overwhelmingly calls for more rigorous methodologies and studies. The growing body of literature on online learning calls for the same. In 2000 Reeves stated the need for better online assessment approaches, beyond just 'acquisition of knowledge' to include things such as cognitive changes (in which he includes attitudes), performance in the online experience; and a portfolio, or the student's written record. He argued that it is important to look at 'experience that leads to outcomes'; in other words, the experience of learning and interacting online is unique and must be better understand as education moved forward into this space. Research studies on gaming and participant experience have looked at 'immersion' of participants in online games based on surveys and observations to understand and gauge the experience, though emotional reactions are only implied. (Jennet et al, 2008) Simulations that replicate social interactions are taking place in the game Second Life, for instance, with little known about the emotional experiences of participants. (Warburton, 2009).

This study is a preliminary step in refining simulation assessment to try and tease out these less tangible elements, and perhaps explore the role of emotion in the educational experience of role play simulations. Using the same feedback form to survey students after the simulation experiences, we have divided questions into *affective*, or those related to emotion and feeling; and *cognitive*, measuring the acquisition and synthesis of information and knowledge. The last two questions under *cognitive*, which are *critical thinking* and *attitude*, could be categorized in the affective realm, however we leave them in *cognitive* since these less tangible aspects could be most closely linked to acquisition and synthesis of information and knowledge.

Simulation Findings

Our data on assessing less tangible elements of simulation experiences involves two groups of students. The first group includes fifteen students from Arizona State University (ASU), Carnegie Mellon University (CMU), Bar-Ilan University (BIU) and Sapir College (SC), who provided their insights immediately after the 2013 simulation and one year later. Looking at results from this group enables us to compare the immediate effects of the simulation and its imprint at a later point in time. The second group includes twenty one students from ASU, BIU and SC, who participated in the 2014 simulation. This group enables us to compare different populations of students to verify if trends are robust to different simulations. However, we still do not have the follow up information of one year later for this second group. All findings are presented in percentages to enable a comparison across groups and time. They are arranged in two tables, Table 1 on affective questions and Table 2 on cognitive ones.

Obtaining students' reflections in a systematic manner by use of digital feedback forms is difficult and somewhat problematic. From an ethical standpoint, while essential, the responses

from students are provided on a voluntary basis and therefore rarely cover the entire group of participants. Obtaining responses a year later is even harder, because students who have graduated change emails and are frequently out of reach. As a consequence, this study builds on a relatively small number of fifteen and twenty one students. However, the lack of knowledge on less tangible aspects of simulations as a teaching tool makes these findings important in tracing the way participation in Facebook simulations leaves an imprint on emotional and cognitive learning. Further research on this topic can validate these trends and help improve the use of simulations, both online and face to face, in the future.

Since the assessment of less tangible aspects looks at the simulation experience as a whole, the analysis below is divided into two sections. The first section deals with affective questions and the second one with cognitive. The affective aspects of learning are perhaps unique to learning through simulations, while the cognitive aspects supplement traditional assessment tools such as essays and exams.

For the most part, the students' responses just after the simulation and a year later were very similar. This means students remember their simulation experience well, even as time passes. We join others in asserting that a simulation is a powerful learning experience. Yet, in several responses there was some variation a year after the simulation and reflect the most updated reflections on what students took with them from the simulation; this updating of reflections represents the continuation of the learning process.

I. Affective Questions and Responses

How do students summarize their simulation experience? Does the simulation project receive a higher grade in retrospect? Findings from our study summarized in Table 1 indicate

that students remember the simulation in a positive light and a year after they regard the simulation as an even more meaningful experience on many affective and cognitive aspects. On all but one response from all feedback collected, some 60 percent or more of all responses are in the highest range of 4-5, indicating that the use of cyber simulations on Facebook can be an effective teaching tool in academe.[2] Indicative of such reflections is the following statement "the simulation experience was more fascinating than what I've expected. It is my first time, and it was intense and absolutely captivating. Thank you for this experience!".

The analysis of students` reflections from Table I is summarized and organized below into *trends* which characterize the 2013 and 2014 simulations, *change* over time which addresses the 2013 simulation and *discussion* which addresses the implications of the findings on trends and change.

Involvement in the simulation

Trend: Most participants regard their sense of involvement as mid to high level. This is true for the 2013 and 2014 simulations.

Change: There is a decrease in reflections of midlevel involvement and increase at both extremes.

Discussion: Extensive involvement in the simulation is embedded in the memory of students and this reflection lasts over time, and is expressed in terms of emotions. As one of the participants expressed, "the simulation was thrilling - the intensiveness was the major factor for keeping it realistic and hair splitting, everything being real".

Table 1: Findings on affective questions

Levels	Low		Middle	High		Total
	1	2	3	4	5	
What was your involvement in the game relative to other players in your team?						
2013 simulation	0	0	33	47	20	100
2013 one year after	7	7	13	40	33	100
2014 simulation	0	0	19	38	43	100
What overall grade would you give your team?						
2013 simulation	0	0	13	67	20	100
2013 one year after	0	0	27	67	7	100
2014 simulation	0	0	14	33	52	100
Did you enjoy the simulation?						
2013 simulation	0	7	20	27	47	100
2013 one year after	0	7	7	47	40	100
2014 simulation	0	0	5	48	48	100
Would you like to participate in future simulations?						
2013 simulation	0	7	13	33	47	100
2013 one year after	0	0	13	33	53	100
2014 simulation	0	10	10	48	33	100
Were you able to identify with the team you played in the game?						
2013 simulation	7	0	27	27	40	100
2013 one year after	0	20	7	60	13	100
2014 simulation	0	14	10	29	48	100
Were you able to identify with the character you played in the game?						
2013 simulation	0	0	33	40	27	100
2013 one year after	7	13	47	13	20	100
2014 simulation	19	14	19	10	38	100
Did you gain empathy towards your rivals in the simulation?						
2013 one year after	7	27	33	27	7	100
2014 simulation	24	14	29	19	14	100
Was face to face communication missing during the simulation?						
2013 simulation	0	13	47	33	7	100
2013 one year after	0	20	33	33	13	100
2014 simulation	29	19	24	14	14	100

Team grade

Trend: No low range reflections on the grades given to one's team. Most participants grade their team in mid to high ranges. This is true for the 2013 and 2014 groups.

Change: There is an increase in the midlevel reflections and a decrease in the high extreme.

Discussion: Students emphasized that teamwork is essential when negotiations cover many topics and teams need a coordinating mechanism to act effectively. So, a high grade for one's team indicates an intensive intra-team experience and personal connection. Such high-grade reflections are embedded in the memory of most participants and last over time, though it seems that some early excitement wares off.

Enjoyment of the simulation

Trend: Typical comments on simulations as a fun experience are repeated in many feedback forms: "I enjoyed the simulation, I felt I learnt a lot, acquired information and practiced communicating", "I am very happy with my participation" and "I really enjoyed the exercise of the simulation and the interaction with BIU students". Corresponding with these statements, no low levels reflections on fun are found. Students rate mid to high levels of fun, with particularly striking levels of almost 100% at the high extremes in the 2014 group.

Change: There is a decrease in the midlevel reflections along with an increase at the high extreme.

Discussion: The memory of the simulation as a fun experience is embedded in the players' reflections and it grows over time, perhaps indicating feelings of nostalgia for an exciting learning experience. The use of personal Facebook profiles in 2014 reduced some frustrations that were evident in the 2013 simulation when participants were requested to use a separate Facebook account created for the simulation that caused some blocking of participants by Facebook.

Participation in future simulations

This question is an operational measure which complements the former reflections on fun. A typical statement of participants on both issues is: "I had a successful simulation

experience. It was my first time being a part of a simulation so I learned what to do for next time."

Trend: No minimal low level reflections on willingness to play in future simulations. The rate of midlevel reflections is relatively low and with no change over time. Most participants' reflections are in the high level of readiness to partake in future games. This is true for both the 2013 and 2014 groups.

Change: There is an increase in the highest level reflections of willingness.

Discussion: It seems that memories of a fun event are translated into a willingness to play and this memory grows over time as a positive experience one wants to repeat in the future.

Team identification

The findings on identification with team and roles, and feelings of empathy for rivals are interesting when viewed as a cluster. Table 1 shows that students reach a stronger identification with their team than with the character they represent, a reflection which is embedded in long term memory. This is true for both 2013 and 2014 groups. Empathy with rivals, discussed below, is much lower.

Trend: Some reflections on identification with teams are at the minimal level, but most participants are in the mid to high ranges.

Change: There is an increase in reflections of identification with teams at the extremes and a decrease in the midlevel.

Discussion: A majority of the students identify with their team and this feeling is embedded in long time memory which grows over time.

Identification with character/role

"I had a very hard time playing someone whose views I didn't necessarily agree with" or "I felt I was fighting as if I was really Obama," are typical quotes reflecting a duality of feelings when it comes to identifying with the character they represent. This is especially true when students are cast in the reverse of their preconceived positions. Hence, it is not surprising to find more identification with team than with character which is emphasized in long term memory. This is true for both 2013 and 2014 groups.

Trend: Some minimal level reflections on identification with character are found but most reflections are at midlevel. There were only some high levels of identification with character, unlike most other findings in this analysis.

Change: There is an increase in reflections of identification with the character at the low extremes, some increase at midlevel and a drastic decrease at the high extremes.

Discussion: The majority of students identify only partially with their character and this feeling is embedded in long time memory which grows over time**.** Perhaps in world politics negotiations, players feel they represent their team more than the specific character they play. It may be easier to learn about the team as part of a joint participation in a learning community than alone about one's own character.

Empathy

This aspect is a deeper level of emotional attachment than identification. While one plays in a team and hence comes to identify with the group as a result of actual practice, empathy with rivals is harder, as students note: "it was very interesting to see the way others played their respective roles". But, empathy towards others comes from encounters, not from merely stepping

into one's shoes. As a result, empathy may even decrease during the simulation. This duality is problematic and can be discussed in debriefing sessions.

Trend: A roughly equal split of reflections on empathy with rivals is evident between the low, mid and high levels. This is true for the one year after feedback from the 2013 group and for the 2014 one.

Discussion: Students vary in their reflection of empathy, maybe indicating a preoccupation with identification during the simulation as well as the difficulty in empathizing with an adversary. It seems that simulations are a better tool to trigger identification than empathy, so educators are advised to allocate players to teams carefully and if possible to switch roles between teams in consecutive simulation rounds. This measure enables students to play opposing roles and potentially learn about conflicting points of view through practice and increase their empathy with rivals.

Lack of face-to-face communication

Findings on this question are unlike most other questions meaning that most reflections are not at the high levels. This is true for both 2013 and 2014 groups. "Not having face to face discussions wasn't a big setback and made comments more daring and strong". This statement illustrates a common feeling that absence of face-to-face communication wasn't a major obstacle during interactions on Facebook. It may be that a common use of personal Facebook profiles maximizes the ease and friendliness of the social network platform so cyber communication is natural and effective. This finding which is also found over time supports the choice of cyber simulations as a useful teaching tool of world politics.

Trend: Mixed trends are found at the midlevel which in 2013 amounted to about a half of all reflections, dropping to one third in the one later group of responses, and to a quarter in 2014

group. So, in the 2014 simulation students felt most comfortable with the use of exclusive cyber exchanges.

Change: There is a decrease in midlevel reflections on the lack of face-to-face communication along with some increase at the extremes.

Discussion: Lack of face-to-face is not embedded in a memory as a crucial shortcoming of Facebook simulations, a feeling which lasts over time. The comparison of 2013 and 2014 results shows that Facebook can serve as an effective surrogate for face-to-face simulations across the global village.

II. Cognitive Questions and Responses

Cognitive aspects are summarized in Table 2. On most questions, some 60 percent of all responses from the 2013, 2014 and one year later reflections are in the highest ranges of 4-5. Three exceptions are the issues of the simulation and reality, understanding the Arab-Israeli conflict and attitude change. Findings on Facebook are interesting and change over time is meaningful, supporting the use of cyber simulations on Facebook in the global village. The analysis of cognitive aspects, like the affective ones, relates to *trends*, *change* and *discussion*.

Simulation as a learning experience

When students summarize their learning experience, common statements are: "it was a great learning experience", "good experience with room for improvement", and "a great learning experience on the subject of international relations and leadership!". This indicates that the simulation experience, beyond being an enjoyable exercise, is regarded as a valuable learning process.

Table 2: Findings on cognitive questions

Levels	Low		Middle	High		Total
	1	**2**	**3**	**4**	**5**	
What grade would you give for the simulation as a learning experience?						
2013 simulation	0	0	20	67	13	100
2013 one year after	0	7	7	47	40	100
2014 simulation	0	0	14	52	33	100
Have you learned during the game?						
2013 simulation	7	0	47	33	13	100
2013 one year after	0	13	13	60	13	100
2014 simulation	0	5	5	57	33	100
Is Facebook a useful platform for the game?						
2013 simulation	7	20	47	7	20	100
2013 one year after	7	0	33	33	27	100
2014 simulation	0	10	24	43	24	100
Did the simulation as a whole reflect reality?						
2013 simulation	0	27	60	13	0	100
2013 one year after	0	7	53	40	0	100
2014 simulation	0	0	29	57	14	100
Did you gain a better understanding of the complexities of world politics						
2013 one year after	7	0	27	47	20	100
2014 simulation	5	5	10	38	43	100
Did you gain a better understanding of the Arab-Israeli conflict						
2013 one year after	13	13	33	33	7	100
2014 simulation	0	24	14	38	24	100
Do you follow current developments in the Arab-Israeli conflict						
2013 one year after	0	0	13	40	47	100
2014 simulation	10	5	14	57	14	100
Are you critical regarding these developments?						
2013 one year after	0	0	27	27	47	100
2014 simulation	14	0	14	57	14	100
Did you change your attitudes on the conflict?						
2013 one year after	53	13	27	7	0	100
2014 simulation	43	10	38	10	0	100

Trend: Most participants hold mid to high level reflections of learning experiences. This is true for both 2013 and 2014 groups.

Change: There is a drastic decline in the midlevel reflections of learning experiences and a meaningful increase in the high extremes.

Discussion: Simulations are considered as a meaningful learning tool, a recollection that strongly increases over time.

Learning during the simulation

This question complements and supports the finding on the simulation as a learning experience. While the former question looks at the simulation as a multi-dimensional experience which contributes to the accumulation of knowledge, this one looks specifically at learning as a cognitive process.

Trend: The reflections of most participants on learning are at the mid to high levels. This is even more striking for the 2014 one where some 90% indicate they have learnt at the highest levels.

Change: There is a drastic decline at the midlevel reflection about learning, some increase at the low extremes and a major increase at the high extremes.

Discussion: "I can say I've learned many things, mainly in the process of the negotiations, planification, submittal, discussion, conclusion and the positive and motivating relations in the USA (fictional) team". So evidently simulations are remembered as a rich learning environment, which is strengthened in long term memory.

Facebook as a useful platform

Facebook has gradually gained a more professional status beyond its role as a tool of social communications. As a result, it triggers mixed reactions with most students feeling quite comfortable and others still resistant to its use. Consequently, the reactions students provide supports the use of Facebook as a simulation platform, but are also aware of its shortcomings: "Facebook is a good tool but it can't be effective if users are running all over the place commentating and throwing up thing for the sake of it (what they would never do in face to face negotiation).", "it may be helpful to create a separate private page on Facebook for the media

outlets. The flurry of posts can be difficult to track with the added media noise, and it might be easier to track their correspondence if it were separated", and "it's great to talk about this kind issue online".

Trend: Reflections on Facebook indicate mixed results with a meaningful change over time. This is true for both 2013 and 2014 groups.

Change: There is some decline at the midlevel reflections on Facebook as a useful platform and a drastic change in the extremes with a meaningful decrease in low ones and a meaningful increase in the high ones.

Discussion: Facebook is regarded as a suitable platform, a recollection that strongly increases over time. This finding may be the result of an increased legitimacy of Facebook as an educational environment used frequently in the era of globalization.

The relationship between the simulation and reality

"Everything being real", is a common statement on how students perceive that simulations fit reality. But comparative findings show mixed trends, unlike most other affective and cognitive questions.

Trend: The reflections of most participants indicate a mid to high fit with reality. This is even more striking for the 2014 group.

Change: There is a minor decline at the midlevel reflections on the fit between simulation and reality along with a decrease at the low extremes and a major increase in the high extremes.

Discussion: Simulations are regarded by most students as reflecting reality, a memory that is meaningfully strengthened over time.

An understanding of the complexities of world politics

Trend: Most participants hold reflections of a mid to high level of understanding on the complexities of world politics. This is true for the one year after of the 2013 group and for the 2014 one, supportive of the use of simulations as a learning tool in the interdependent global village.

Discussion: "The simulation was very complicated and it reflects reality quite well". So, the simulations seem to be regarded as reflecting reality, a memory that increases over time, indicating that when students experience conflict situations they end up realizing and grasping the complexities.

An understanding of the Arab-Israeli conflict

Unlike gaining a better understanding of world politics complexities, understanding specific conflict dynamics, such as the Arab-Israeli conflict, is more problematic. One may gain knowledge but remain puzzled about conflict causes, management and options for resolution. Unlike other questions, where the reflections of most students are predominantly at high levels, here there are mixed findings for the one year after of the 2013 group and for the 2014 one. A closer look at differences between American and Israeli students shows that participants from outside the conflict region differ greatly on this aspect, as opposed to students inside the conflict region. For American students alone, three quarters of the reflections are at the high extremes, while only a half of the Israelis feel this way.

Trend: Fewer of the participants felt that they had reached a high level of understanding of the Arab-Israeli conflict. This is true for the 2013 group one year after, and for the 2014 one.

In the one year after, a third of the participants indicate midlevel understanding, less than a third at the low extreme and more than a third at the high extreme, somewhat like the findings on

empathy with rivals. In the 2014 feedback the result of a better understanding of the conflict may be the result of a corresponding lack of success in reality and in the simulation.

Discussion: While simulations are regarded as reflecting reality, a memory that increases meaningfully over time, this does not translate to parallel levels of understanding of the empirical conflict dynamics. This means that you can practice the conflict and end up realizing that it is hard to understand the flow of events and the lack of cooperation among rivals. So by use of simulations students learn about the realities, confront the complexities and understand that it is extremely difficult to solve the conflict. As one of the students put it: "understanding others is always important, and respecting their desires for sovereignty, understanding, security and mutual appreciation."

Following current events

Like their evaluation of the learning experience, most students reflected that the simulation caused them to follow current events more in terms of the Arab-Israeli conflict. This finding is similar for American and Israel students.

Trend: Most students' reflections on following current events are at the high levels. This trend is true for the 2013 group one year after, and for the 2014 group, though the latter are somewhat lower.

Discussion: Unfortunately no comparison is available between 2013 and one year in the feedback so it is hard to say if the simulation triggered this interest. It is interesting to find that students from within the region and outside it follow current events with a more a less similar pattern.

Critical thinking

"(Mind opening), challenging, interesting" or "it was interesting and very challenging!", are typical statements which show that critical thinking is an indispensable part of the simulation experience. Among all less tangible aspects, critical thinking is perhaps the most salient skill students in the 21st century need to learn and rarely practice in academe. Like the learning experience, reflections on high levels of critical thinking in reflections of students are offered by participants of the one year after 2013 and 2014 groups.

Trend: Most participants regard developments on the conflict from a critical point of view.

Discussion: Unfortunately no comparison is available so it is hard to say that the simulation helped trigger this mode of critical thinking over time.

Attitude change

Trend: A very high percentage of the participants indicate they did not change their attitude at all. This is true for the one year after of the 2013 group and for the 2014 one. However, looking separately at American and Israeli students indicates that attitude change is more common for American students than for Israelis. More than 60% of the former indicate mid to high levels of attitude change, while roughly 65% of Israeli students are at the low extremes.

Discussion: Increased understanding of reality, comprehension of conflict complexities, identification with team and even some empathy with rivals do not automatically translate into attitude change. The results show that students from within versus those outside the conflict region differ. This is significant, and perhaps indicates the difficulty, and even resistance, in touching values, norms and ideologies during an ongoing conflict, let alone changing them.

Conclusion

Overall, the findings on *affective* and *cognitive* aspects show that most respondents, in 2013, the 2013 group one year after, and the 2014 groups, consider Facebook simulations as an effective learning experience and regard their participation in favorable terms. This conclusion is conveyed in responses to multiple choice questions providing quantified trends, and in written statements provided in the feedback forms which provide a qualitative supplement that strongly supports the quantitative results. The results show that high levels of enjoyment, involvement in the experience and identification with team members occur, as well as positive responses to the simulation as an overall learning experience. The learning, however, seemed focused more on the process of conflict negotiation rather than details of the conflict itself. And, while from the students' perception critical thinking was involved, responses indicated less in terms of changes in attitudes after participating in the simulations games. This seems to fit the other interesting finding, which is that while most students identified well with other members of their own team, and even perhaps with the character they were role-playing, developing empathy for rivals was not strongly reported.

There are several issues worth noting as a conclusion to this study. The interrelationship between feeling and learning is complex; it therefore is not surprising that while the affective and cognitive aspects of the learning experience are integrated, it is much more difficult to isolate specific connections. So while excitement, happiness, tension, etc. can impact an individual's depth of involvement and hence perception of learning as positive, this does not necessarily mean that a role-playing simulation will engender deeper emotions such as increased empathy and changes of attitude. This may be because empathy is too deep and complex to be reached in a relatively brief role-playing exercise, particularly in an entrenched and ongoing conflict that is

accompanied by a high state of emotional content of its own. It is also interesting to note the differences between the American and Israeli students, the former group from outside the region with relatively little knowledge of the conflict, and the latter from within the conflict region, experiencing and living it firsthand. The American students learned more about the conflict itself, which is not surprising as they began with very little knowledge. It is possible that with international collaborations the learning outcomes could actually be different, though met through the mutual activity of the simulation.

Since our findings are based on a relatively small number of participants, we hope future research will test and validate the trends we found regarding the less tangible aspects of simulations as a teaching tool. Further research is needed to focus on the complex connection between the affective and cognitive aspects, as well as cross cultural and learning outcome differences when collaborating around the world for joint educational activities. It is clear that online learning is here to stay, and it provides an unprecedented platform and opportunity to globalize and internationalize our classrooms and curriculum. Simulations in international studies have become a core activity for many, and as we move into cyber space and connect with colleagues around the world the opportunities are endless, but so too is the need to continually assess the process and educational outcomes.

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[1] Ben-Yehuda Hemda, Levin-Banchik Luba and Naveh Chanan (forthcoming). *World Politics Simulations in a Global Information Age*. Ann Arbor, MI: University of Michigan Press.

[2] The only exception is a difficulty to identify with the character one represents, as detailed in table 1 and the analysis below.