Teachers' Perceptions on Reflective Practices in Higher Education Institutions: A Case Study

Samar Wahba, The American University in Cairo, Egypt

The European Conference on Language Learning 2018
Official Conference Proceedings

Abstract
This study examines the perceptions of teachers on their reflective practices in private higher education institutions. The aim of the study is to understand how teachers' perceptions on their practices may impact the development of their teaching methods. The research investigates the views of teachers on their reflective practices and examines the teachers' approaches in applying such practices in teaching to establish whether these reflective practices are important and to what extent they benefit the teacher. This research focuses on English departments within the context of private institutions: The American University in Cairo (AUC) and Misr International University (MIU). A qualitative approach was utilized in this study. Ten faculty members voluntarily participated in a one-on-one interview. The study adopts the experiential learning cycle as its theoretical framework focusing on the stages of reflection. The results appear to support the finding that instructors of both AUC and MIU were aware of the significance of reflection because it has positive impact on their teaching. Moreover, self-reflection on practices appeared to be plausible and experienced by individual participants as helpful. Furthermore, they were valuing feedback from students and peers to a great extent. Furthermore, teachers were both self-reflecting to ensure they were doing their jobs properly and meeting students' needs. There was an indication that they wanted to improve in their own performance in order to enhance and enrich students' learning. Data collected and literature in this research have demonstrated that reflective practices should be reinforced and incorporated in teaching because it has positive impact on teacher instruction.

Keywords: Reflective Practices - Development - Teaching methods
Introduction

The higher education arena is witnessing a great movement of reformation after facing various challenges in the twenty-first century. Lowery (2003) suggested that one of these reform endeavors is to create and develop educators who are reflective of instruction and learning process. Instructors need to build the abilities for reflective thinking, look into work that has been done, and research the function in various situations. Duthilleul (2005) mentioned that in order to be able to work in diverse environments, it is essential for teachers to research on the job through developing their reflective practices skills. Consequently, to enhance the instructive needs for students, different styles of teaching must be considered. Mirzaei, Phang and Kashefi (2014) reported that educational reform advances learning conditions and situations that energize meaningful and useful learning as opposed to learning that depends on repetition and memorization, creating an alternate perspective of teaching and learning which are the methods for supporting both education and the learning process.

The idea of 'reflection', with its broad meaning is currently utilized as a general practice crosswise over higher education, particularly in proficient settings and in self-awareness development for students. It has additionally been utilized as a general practice within projects and programs of beginning proficient advancement for new individuals from scholastic staff on educating, or scholarly practice in a more comprehensive manner (Grace et al., 2006).

Several studies were conducted to explore the benefits that could be gained from utilizing and exploiting the reflective skills in educational institutions, generally, and in higher education, specifically. In view of the studies reviewed, reflection is undeniably an absolute necessity for experts particularly in education. Therefore, educators ought to reflect on what is going on within the classroom, why students are carrying on the way they do, and what should be done for the students to manage a decent classroom encounter that will lead to better learning practices. Numerous specialists have directed studies concerning reflective teaching in education (Grace et al., 2006) indicated that the objective of the studies conducted on the adequacy of reflection is to offer an outlook for affecting future practice.

Purpose Statement

The purpose of this study is to investigate the views of teachers on reflective practices in teaching at private tertiary institutions. The researcher examined the application of reflective competency in teaching in the English language Programs in AUC and MIU. The English department is based on the derived form of a variety of educational practices integrated by their faculty members for delivering the different content. Therefore, different strategies, practices and skills might be articulated in order to enrich the findings of this research, but the main focus is to assess the teachers' views on their reflective practices. In addition, there is a requirement for studies that further clarify and consider instructors' reflection with the goal of adding recommendations in regards to teaching practices. Hence, this investigation will inspect the educators'
perceptions' on reflective practices by determining and analyzing how they perceive their reflective skills that impact their teaching.

Research Questions

This research was conducted mainly to look into the reflective teaching practices in private higher education institutions in Egypt. The aim of this research is to answer the following questions:

1. In what ways do teachers reflect on their practices?
2. What is the perceived impact of reflective skills on the development of their teaching?

Literature Review

Definition and Forms of Reflection

It can be maintained that there has been several changes concerning the meaning of reflective teaching. As characterized by Dewey, reflective teaching is the deliberate and persevering thought of any supposed form or conviction of cognition in the figure condition to which it is given and the light of the ground that hold it. According to Dewey, reflection incorporates addressing and distinguishing such issues and in the end reflective instructors reflect upon the instructive, social and political settings in which their lessons are tied down (Sanopao, 2016). Eventually, reflection can offer the opportunity for teachers to widen their horizons and not to be limited to specific concerns.

While the idea of reflection has been around since ancient times, lately we have seen a resurge of enthusiasm for reflection as a method for comprehension and gaining from experiences. As reflection has no exact definition, it is comprehensive of changing theoretical points of view (Hickson, 2011). Furthermore, reflection has various forms, which can be depicted through several activities.

York-Barr and her colleagues (2006) mentioned that in order to “embed reflective practices as a social standard in schools,” reflective practice spiral should be developed as an approach. They contend that reflective practice begins with individuals and spreads to larger communities and groups of practice. They depict various activities like journaling and cognitive coaching as well (p. 19).

The Significance of Reflection

Reflection includes: proficient development, personal growth and significant change. Reflection in teaching has developed into an overarching standard around the world where being a productive instructor includes an individual sense of duty concerning thoughtful practice. The debate regarding reflection is profoundly in a state of conflict; however, it can be considered as a basic ability and an image of scholarly depth (Atkinson & Irving, 2013).
Additionally, reflection is a powerful approach to self-improvement and self-coordinated learning (Gallacher, 1997). There is no doubt that reflection is essential for proficient development and productive instructing that without reflecting, the learning potential is lost and received experience might be neglected and ignored (Gibbs, 1988). Subsequently, educators can benefit a lot when reflecting on their work as it adds to the learning process. There is one quality over all that makes a good educator, the capacity to reflect and think about why, what and how things are done and to adjust and build up teachers' practices within lifelong learning. Reflection is the way toward effective learning for educators. As the Lifelong Learning UK (LLUK) guidelines clarify, reflection is the way to become an expert instructor as it is considered to be a supporting value (Scales & Kelly, 2012). In addition, educators gain more benefits from applying the idea of reflection in their development as experts.

The advantage of reflective practice for educators is a more profound comprehension of their own teaching style and more viability as instructors. Other advantages noted in the current literature incorporate the approval of an educator's beliefs, the advantageous challenges to tradition, the acknowledgment of instructing as a great skill, and the regard for assorted variety in applying theory to classroom practice. A case study of one educator/graduate student attempted to comprehend her convictions and practices about what constitutes great instructing. Her underlying instructional method for educating depends on the conventions and practices of direct instruction. Her traditional socialization to an educating practice made it troublesome to comprehend that her perspectives of good instruction were being tested in her teaching.

Nevertheless, the open door for investigation through reflective portfolio work empowered her to recognize and approve what she was realizing and learning (Ferraro, 2000). As such, teachers are able to develop their cognitive and learning skills when reflecting on their practices.

Additionally, several elements should be considered when tackling the idea of reflection.

Reflection is associated to components that are key to cognitive advancement and essential learning: the limit to enhance individuals' capacity to consider their reasoning; the limit to judge the nature of their work in light of confirmation and explicit criteria with the end goal of doing better work, the capacity to self-assess; the improvement of critical thinking, decision making, problem-solving; and the upgrade of understanding the student. (Rolheiser, Bower and Stevahn, 2000, p. 31-32)

For improving instructional methods, teachers take into consideration critical thinking skills. Brookfield (2017) suggests that reflective teaching is determining the essence of teaching. Therefore, instructors must keep reflecting on their methods of instruction to improve their teaching profession (Sanopao, 2016). As a consequence, teachers can improve their instructional methods through considering the notion of reflection.
The Reflective Teacher

Within the century, it has been argued by educators that instructors should be reflective about their work since societies and schools’ orders are regularly changing to be able to cope and adequately adapt to such evolving circumstances (Grant & Zeichner, 1984). Alternatively, reflection on experience is the main basis for learning. Loughran (2002) states that experience cannot help with learning, but rather that reflection on experience is crucial for the sustainability of meaningful reflection. Similarly, Knowles et al. (2014) stressed that experience is transformed into learning throughout reflection; an argument that stresses on the significance of reflective thinking.

Quinn (2000) proposed that all the distinctive models have a tendency to include three essential procedures. First, retrospection which is recalling about an event or experience. In order to become reflective, teachers should think and reflect on what they experience in their work.

They need to analyze, assess and evaluate the situations they encounter. Second, utilize hypothetical points of view for analyzing the feelings and actions related to the experience. After considering different perspectives and theories, teachers should come up with the results that will help them in taking decisions for future plans. Third, reorientation that is dealing with comparable experiences throughout using the outcomes and results of self-assessment to impact future approaches. Such outcomes will help teachers in developing their skills, practices and methods for better instruction. In consequence, self-evaluation throughout reflection is an essential aspect for teachers.

The previously mentioned aspects led to tackling an essential issue in reflection, which is reflective thinking. Harrison (2008) noticed that observation, judgment, decision making, team working and communication are the core efficient thoughts of reflective thinking skills. The five abilities of reflective thinking including initial instructor education are critical competencies for professional development and are appropriate to all phases of the learning of educators. Instructors can create reflective thinking aptitudes with the collaboration provided through a teaching portfolio, dialogue journal, and purposeful discussion (Cruickshank, 1985). Overall, teachers gain numerous benefits when utilizing their reflective skills throughout various activities for developing their proficiency and better instruction in their classrooms.

The Origin of Reflective Approach

The origin of reflection was the fundamental work of Dewey that was additionally developed by Schön (1983), Argyris and Schön (1996) and Mezirow (1990) that set up the establishments of reflective practice. John Dewey was a leading educational philosopher of the late nineteenth and mid-twentieth century, and still his ideas are relevant. He understood that traditional instruction, as then rehearsed in his native America, was inflexible, static and deficient for the rapidly changing society and economy of the time. We should, as Dewey says, move from routine action to
reflective action, which is portrayed by continuous self-evaluation and advancement. The key to Dewey's rationality was the advancement of thinking, especially, reflective thinking (Scales & Kelly, 2012). Some other philosophers emphasize on the idea of reflection such as Schön, especially when it comes to putting it into practice.

Teacher's reflection was put into the spotlight after Schön (1983) interfaces reflective speculation and proficient practice. He communicated that experts confront a progression of difficulties and challenges that cannot be resolved by rational techniques and logical methodologies. He hypothesized an approach that experts can learn through reflection, that is, reflection in action and reflection-on-action (Sanopao, 2016).

On the other hand, Kolb was one of the philosophers who encouraged the idea of putting theory into practice throughout his theory of experiential learning. Learning through practice and reflective procedures has been elucidated by Kolb (1984) in the terms of his experiential learning hypothesis. The theory proposes that learning; change and development are encouraged by cyclic procedures. Such encounters include reflection on the experience, direct encounters and dynamic concept development from which conduct might be changed to help new encounters (Hickson, 2011). Eventually, in order to put theory into practice the significance of reflection should be considered by educators.

The previously mentioned ideas of the theorists and philosophers led to the exploration of the importance of reflection. David Kolb was one of the theorists who contributed to the idea of reflection with his experiential learning theory.

In consequence, both learning stages and cycles of Kolb can be utilized and considered by educators to basically assess the learning provision normally accessible to students, and to grow more fitting learning opportunities and discover ways to improve their teaching.

**Kolb’s Cycle on Experiential Learning**

Kolb introduced his theory on experiential learning more than 20 years ago, which has been well accepted as an efficient pedagogical model of learning. Kolb’s experiential learning theory provides clear mechanisms of teaching and learning design, which are strongly underlined with the constructivist view on the way people construct their knowledge (Abdulwahed & Nagy, 2009). Consequently, it can be maintained that the theory of experiential learning of Kolb contributes to pedagogy and instructional methods.

As stated by Butler (1996) and Oinsky et al. (1998), in the experiential learning process, experience is transferred into enhanced skills and knowledge, and educators might become aware of not only what was effective, but also why it was successful. Four types of capacities are needed from learners if they are to be productive and effective. These stages are concrete experience abilities, reflective observation capacities, abstract conceptualizing abilities and active experimentation capacities.
That is they should have the capacity to include themselves in a complete and straightforward way without predisposition or bias in new encounters. They should be able to think, observe and reflect on their encounters from various points of view. Additionally, they should be able to create ideas and concepts that incorporate their perceptions and observations into rationally sound speculations and theories. In addition, they should have the capacity to solve problems and make decisions by utilizing these theories. Subsequently, teachers should discard old methodologies and create new theories in order to be creative and innovative. Learning is a procedure whereby information is made through the change of involvement. In like manner, the center of his model of experiential learning is "a straightforward portrayal of a learning cycle, how experience is converted into ideas, which thusly are utilized as aides in the decision of new encounters "(Kolb 1976, p.21). In consequence, teachers are considered to be learners in the learning process cycle as they learn from their experiences and attempt to improve their skills and capacities.

The idea of experiential learning shapes an alluring package for adult educators. It consolidates feeling, spontaneity and profound individual experiences with the possibility of reasonable reflection and thought. Moreover, it preserves the humanistic confidence in the ability of each individual to learn and develop; which is imperative for the idea of lifelong learning. It contains a positive ideology of experiential learning that is clearly vital for the education of adults (Miettinen, 2000). The idea of reflection gives educators the opportunity to discover new horizons and useful dimensions not only for learning but also for developing beneficial theories, which contributes to education.

**The Experiential Learning Cycle's Contributions**

The application of Kolb’s Four Stages Cycle on Experiential Learning proved its success when conducted in various institutions.

This research represents a personal account and assessment of an instructor from a course of organizational learning based on his conversations, observations, notes and reflections of his encounters instructing a management elective at MU. It emphasizes the significance of utilizing experience to additionally enhance and build up one's skills, identity and productivity. It depicts, the various progress stages encountered by the author, from an uncertain, novice to a confident educator and individual, the change from an instructor who depended on customary formal lecture based method of instruction to a more effective, educator able to adequately explore different avenues with more experiential strategies for teaching comprising of research projects, case studies and discussions.

The educator illustrates how adequately and effectively he applied the model of Kolb's ELT in order to remodel and enhance the Management course 4126 at the undergraduate level at MU and refined his instructing competence. The fundamental objective of the course was to guarantee that students comprehend the significance and pertinence of organizational learning and the tools and aptitudes required to learning associations' design.
The research approach is accordingly qualitative and depends on two years of instructing one to two sections for every fall and spring semesters for a management elective offered at MU. Established basically with the purpose to instruct African American youth, the college confers itself 'students first' as its center institutional values. The data was gathered from students' remarks on student assessment sheets; the teacher's personal notes about his discussions with the departmental chair and dean on a few events; letters dealing with students' complaints passed on from the dean about the course; and, lastly, through an open-ended questionnaire attempted on 35 students about the overall adequacy of the course in Spring 2007 on the request of the dean. The data is thusly complete and comprehensive covering the points of view from the instructor and the students, including the institutional management. It is additionally supplemented with his personal observations, tensions, worries and feelings, which he encountered amid a period of two years (Spring 2005 to Spring 2007) as the instructor of organizational learning course (Akella, 2010).

It can be concluded that the experiential theory of Kolb a well-developed theory that can be successfully used to analyze and explain the methods of instruction and styles of learning in the instructive research community.

---

**Figure 1. Kolb's Experiential Learning Cycle - Stages of Reflection**
Methods

This study utilized the qualitative method and took place in the American University of Cairo (AUC) and the Misr International University (MIU). A sample of teachers’ informants was selected in order to conduct this research; moreover, convenience sampling was used to select the participants required to fulfill the purpose of the study. Five academics were selected from each university based on their willingness and availability to take part in the interview process, as most of the instructors were occupied with proctoring and correcting exams at the time of conducting the study. Participants from both universities were teaching language skills in the English program and have different English language degrees. All the participants are females and their age group varies ranging from 30 to 50 years old. They are employed as full-time staff and hold the same academic position except two participants who has a senior position (one from each university). They are seniors who are supervising the instructors in the English department. The research design included one instrument which was used to obtain data that investigated the reflective teaching skills of private universities English teachers. The data was collected by conducting one to one interviews in order to measure teachers' reflective skills. Interview protocol, included in (Appendix A), was employed to measure teachers’ reflective practices.

For the articulation and explanation of the research, a list of questions on teachers' perceptions about reflective skills in AUC and MIU were provided to help in building a unique understanding from the interviewer perspective. The participants were able to expand and took after various lines of inquiry that might be acquainted to the interviewee through a rich discussion.

The data was collected by conducting one-to-one, semi-structured interviews to obtain data, in order to indicate the reflective teaching skills of private universities English instructors. The interview enabled instructors to answer the questions and clarify the significance of reflective practices and understanding the gaps if there were between educators' reflective competencies that they require in their instructing. Each interview lasted approximately 40 minutes. For data collection, approval was given to the interviewer in addition to a consent contract of Institutional Review Board (IRB) which was needed to be conveyed to the participants (Appendix B). Before the procedures took place, the administrators issued permission. After obtaining the required approvals, the researcher started to conduct interviews to gather the relevant ideas before starting the coding process. Interviews were audio recorded then transcribed and the consent form helped to ensure the participants approval of recording the interviews. Additionally, the researcher kept notes to better understand the recordings and to help in analyzing the gathered data. After conducting the interviews, the researcher started to transcribe the data. The data gathered from the interview was then analyzed using the thematic coding approach. In order to facilitate qualitative data analysis, answers to the interview questions were analyzed and different themes were generated.
Discussion

The Reflective Practices of AUC and MIU Instructors in the Context of Kolb's Experiential Cycle

In this section, the impact of reflective skills of AUC and MIU instructors on the development of their teaching methodology is discussed from the perspective of the experiential cycle of Kolb.

Developing and building up the instructional model of reflective skills for educators' outcomes, supported teachers with an accommodating framework for incorporating certain models of their instruction. Eventually, the model's value is derived from the extent to which the instructors can utilize to meet their instructional objectives efficiently and effectively.

In the first stage of Kolb's experiential learning cycle, educators are considered to be learners who learn from the experience of reflection. They experience different situations in their class teaching or with a faculty member. Teachers deliver their lessons using different methods. They can rely on the traditional method or the modern techniques. In some cases, teachers can sometimes get unexpected negative results from their students. From here, teachers start to realize that they need to reflect in order to learn something new or improve on their existing skills and practices. At this stage they will observe and self-assess themselves by taking notes and comments from students on the specific situation where they describe it in their notebooks or journals.

Regarding the second stage of Kolb's cycle of experiential learning, the teacher will observe and reflect on the lesson he/she explained in class. Teachers reflect through students' feedback in class and peers' comments out of class. In other words, they describe what they experience by reflecting on the results. Regarding observation skills, the results attained for the finding and analysis of patterns appears to support the finding that instructors in both universities appeared to be aware of the significance of receiving their students and peers' feedback to enhance their instruction. In addition, they considered the verbal feedback received from their students to be valuable as it supports them with valuable insights that give them the opportunity to learn about themselves and reflect on their teaching methodology.

Notwithstanding, this is opposing to the instructors' responses on utilizing students' evaluation reports to enable them reflect as they did not see such reports as supportive and helpful, on the contrary, they saw them as judgmental. Mainly, based on the results, it would seem that instructors were engaged in reflective skills to improve the quality of their teaching, expectations and personal performance as a tool for developing their instruction. They were not open to the notion of using students' evaluation reports as part of the assessment criteria (Hamilton, 2005), or as a tool for measuring teachers' performance of their teaching to improve their reflective competencies. They may view an association between what they are instructing and practicing. Therefore, instructors appear to value verbal feedback from their students.
as well as their peers and supervisors.

The results signify that a majority of instructors were self-reflecting to guarantee that they were doing their jobs accurately and above all they were meeting the needs of their students. What they meant is that they needed to develop their own performance with an end goal to enrich and enhance the learning of their students. Ball and Pearce (2009) noticed that teachers could become reflective of their teaching practices when they change their teaching methods and strategies when required. Additionally, the results implied that the instructors were keen on proceeded assessment of their own discipline. When it comes to the self-reflection section, it is interesting to notice that instructors in both universities connected between what they did in their classrooms and how it could impact the performance of their students.

Moreover, they appeared to be inherently motivated to improve as they noticed value in the feedback of their supervisors, peers and students. This finding infers that they are reflective about their own instruction and they gain numerous benefits from external support and direction. Most of the instructors were open to utilizing past experiences to enable them develop and that they are reflecting on them in reality. They seemed to have presumptions about the way they direct their lessons and how it relates to their students. They likewise appeared to own the reflective skills as suggested by Brookfield (2017).

After reflection, the instructor would notice the strength and weaknesses of their teaching that has been done throughout constructive feedback and self-reflection then think about what should be done for developing ideas and changing concepts. Some instructors offered suggestions on implementing modern technology and new methods in order to be more creative and innovative and for better outcomes in their teaching.

In the final stage of the experiential learning cycle, teachers should invest what they learned from their experiences, observation, and reflection in developing their ideas. Teachers will then put theory into practice by finding new ways to become more innovative and creative in implementing their teaching methodology. In order to be able to solve problems of negative outcomes of students and make decisions regarding implementing the appropriate methods in delivering their lessons, teachers will use their developed theories in addition to their experiences. After implementing such theories, teachers will figure out the results. Eventually, this process will help teachers discover ways to improve their methods after testing them in a new and different situation. Concerning judgment and decision-making skills, it was obvious that instructors in AUC and MIU demonstrated that they were eager to gain and learn from their mistakes. The findings for Making Judgments appeared to support this. They agreed upon the notion of trial and error because they could learn from mistakes and move ahead. They seemed to back research by Boody (2008) and Rudd (2007), which recommends that reflection is a necessary part of the procedure to articulate and analyze problems and issues as well as create a connection with what they do in the classroom.

The overall responses to the interview questions showed a higher frequency for
applying and carrying out the experiential learning cycle theory as suggested by Kolb (1984). This theory proposes that a teacher is considered to be a learner who learns from prior experiences.

Instructors from both universities agreed that getting engaged in reflective skills helps them improve their teaching, and, they perceived that teachers should reflect on their teaching on a regular basis, which will affect their future plans when preparing for their lessons.

This research study focused on the development of the reflective instructional model for teachers in higher education institutions, not only about how teachers think and reflect, but also about the impact of getting involved in their skills in order to invest in their practices to improve their teaching methods and meet students' needs. Subsequently, this simply requires teachers to reach a level of maturity that enables them to remove themselves from bias, consider different perspectives, learn from mistakes and make independent judgments and take appropriate actions.

**Conclusion**

Although the results of the interview and other literature incorporated some of the conclusions reached in this analysis, it is essential to concede that there are some limitations in this study.

Firstly, the researcher is an instructor at one of the universities where the research was conducted, which may have affected the results' interpretations albeit all conceivable precautions were utilized to maintain bias or predisposition. On the contrary, this limitation can likewise be deciphered as a factor that facilitated the elucidation of ideas, given the insider point of view and the teaching experience that the researcher had. Accordingly, the researcher played an important role on clarifying the questions to the participants and establishing a rich discussion during the interview.

Secondly, the interview's low response rate of participation was another issue. The researcher realized that this would be an issue and endeavored to address the head of the English department twice by sending emails to ask for participants and highlighting the significance of this study for teachers' development.

The possible clarification for the low response rate was that the instructors in the two universities were typically overloaded with work and did not have time to participate in the interview; it was a period of midterm exams and the majority were proctoring and correcting exams. In addition, some of the faculty members in the English department were available on campus for only two working days as they are hired as part timers; moreover, faculty members in the department have different schedules.
References


**Contact email:** samarwahba@aucegypt.edu
Appendices

Appendix A Interview Protocol

The following Interview Questions are adopted from the research titled Measuring Teachers' Reflective Thinking Skills conducted by Mirzaei, Phang, & Kashefi, (Interview Questions, 2014).

Part 1: Observation Skill

1. Do you use any observation tools in your class except video and audio recording, writing and drawing? Please explain your response.
2. Please explain, how you assess your teaching to check the relevance of your teaching methods?
3. How do you use the results obtained from these assessments to improve your teaching?

Part 2: Communication Skill

4. Do you think having communication with other English teachers and students contributes to your teaching? If yes, please explain in what ways.

Part 3: Team working Skill

5. Do you think team working and peer coaching can support your teaching? What benefits do you see for both?
6. Do you have any co-teaching with other English teachers? If yes, please explain. What benefits do you see for co-teaching?

Part 4: Judgment Skill

7. Could you describe the strengths and the weaknesses of your teaching methods? What are your suggestions to improve the weakness?
8. Do you think evaluating your teaching method by your students and other teachers can help you to improve your teaching method? If yes, please explain how.

Part 5: Decision making Skill

9. In which way can the weakness and strengths of you teaching help you to make decisions for future actions?