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dr inż. Alicja Balcerak *E F*
Wrocław University of Science and Technology,
Faculty of Computer Science and Management

REFLECTIVE LEARNING FACILITATORS

NARZĘDZIA WSPOMAGAJĄCE UCZENIE SIĘ REFLEKSYJNE

Abstract: In social constructivist approaches to learning reflection is considered as a critical component of this process. There are many reasons why disposition to reflect cannot be considered as a natural state, especially in the work settings. Overcoming reflection barriers is important as reflective behaviour is an essential factor of organizational learning. It is also difficult, and therefore needs education and facilitation. As highly effective reflective learning facilitators are considered techniques that assume social interactions and dialogue, e.g simulation games, behavioural simulations, storytelling techniques. Specific features of these facilitators may imply difference in their effectiveness in concrete didactic or developmental contexts.

The main aims of this paper are to demonstrate the importance of reflection as a crucial element of individual and organizational learning and to compare some of the most effectual techniques that can serve as facilitators of this process. The comparison is made according to the kind of experience that given technique provides, reflection triggers, and reflection forms.

Keywords: reflection, organizational learning, simulation games, behavioural simulation

Streszczenie: W konstruktywistycznych podejściach do uczenia się refleksja jest uznawana za krytyczny element tego procesu. Refleksyjności z wielu powodów nie można uznać za oczywistą dyspozycję, zwłaszcza w kontekście pracy. Przezwyciężanie barier utrudniających refleksję jest istotne ze względu na jej znaczenie dla uczenia się organizacyjnego. Jest to jednocześnie trudne, dlatego wymaga edukacji i wspomagania. Za szczególnie efektywne facylitatory uczenia się organizacyjnego uznaje się techniki bazujące na społecznych interakcjach i dialogu, np. gry symulacyjne, symulacje behawioralne, techniki storytelling. Ich specyficzne cechy mogą wpływać na różnice w ich efektywności w konkretnych zastosowaniach.
Główne cele artykułu to wykazanie znaczenia refleksji jako kluczowego elementu uczenia się indywidualnego i organizacyjnego oraz porównanie technik wspomagających te procesy. W porównaniu uwzględniono rodzaj doświadczenia, wyzwalacze refleksji i jej formy.

Słowa kluczowe: refleksja, uczenie się organizacyjne, gry symulacyjne, symulacje behawioralne

Introduction

It is widely recognized that learning is a multidimensional and multilevel process, that can be considered from different perspectives. Also organizational learning, although undertheorized[1], is established as a central organizational process that affects innovativeness, organizational changes and thus enhances or undermines organizations' capabilities and their competitive advantage.

There is vast body of literature that investigates factors undermining and facilitating organizational learning and learning behaviours in organizations. In social constructivist approaches special meaning is attributed to reflection.

The main aims of this paper are to examine the importance of reflection as a crucial element of individual and organizational learning and to compare some of the most effectual techniques that can serve as facilitators of this process. The paper is organized as follows: First, the author provides review of learning theories that inform individual and organizational learning research and discuss the evolution of reflection classifications. In the second part conditions to achieving and impediments to implementing critical reflection in the workplace settings are presented as

[1] Paradoxically enough, organizational learning field can be considered also as overtheorized as its literature contains "a number of different, and sometimes contradictory, assumptions about the learning process, the role of individual and collective actors, the nature of organizational systems, and the way in which such systems change and adapt through learning" (E. Mitleton-Kelly, B. Ramalingam, *Organisational learning and complexity science: exploring the joint potential*, [w:] P. Allen, S. Maguire, B. McKelvey (eds.), *The SAGE handbook of complexity and management*, Sage Publications, Los Angeles 2011, pp. 351).

reasons why disposition to reflect cannot be considered as a natural state. The third part includes a review of approaches to encourage and facilitate reflective behaviour, and finally a comparison of reflective learning facilitators is presented.

1. Reflection as the critical component of learning

In constructivist approaches to learning, especially in experiential learning theories, reflection is considered as a key element, driving force of this process.

Drawing on the legacy of J. Dewey, J. Piaget, and L. Vygotsky, social constructivist perspective regarded learning as process of knowledge construction, that is:

- active (people actively construct and reconstruct their knowledge systems);
- individual (each learner create his/her subjective representation of reality in individual way);
- social (knowledge is constructed in a particular social context);
- context dependent (individual's learning occurs in contexts to which it is relevant);
- reflective (knowledge construction and meaning-making requires articulation and dialogues)[2].

Among models and approaches consistent with this characteristic are i.a. experiential learning theory (Kolb's model)[3], transformative learning theory[4], action science[5], action learning[6].

In Kolb's[7] model learning cycle consists of four stages: concrete experience, reflective observation, abstract conceptualization, and active experiment. In this integrated process reflection (reflective observation) is a requisite stage, although no more important than other stages. In D. Schön's and J. Mezirow's theories the central role of reflection in learning, especially second-order learning, is evident. C. Argyris and D. Schön[8] discerned two types of learning; single-loop-learning and double-loop-learning. The former one depicts reproductive learning process during which neither goals of action, nor

[2] D.H. Jonassen, K.L. Peck, B.G. Wilson, *Learning with technology: A constructivist perspective*. Prentice Hall, Englewood Cliffs 1999; P.E. Doolittle, D. Hicks, *Constructivism as a theoretical foundation for the use of technology in social studies,* "Theory and Research in Social Education", 31(1), 2003, pp. 72-104.

[3] D.A. Kolb, *Experiential learning: Experience as the source of learning and development*, Prentice Hall, Englewood Cliffs 1984.

[4] J. Mezirow, *How critical reflection triggers transformative learning*, [in] J. Mezirow (ed.), *Fostering critical reflection in adulthood*, Jossey-Bass, San Francisco 1990, pp. 1–20.

[5] C. Argyris, D.A. Schön, *Organizational Learning: a theory of action perspective*, Addison-Wesley, Reading 1978.

[6] R.L. Dilworth, *Explaining traditional action learning: concepts and beliefs*, [in:] Y. Boshyk, R.L. Dilworth (eds) *Action Learning: history and evolution*. Palgrave, Basingstoke 2010, pp. 3-28.

[7] D.A. Kolb, *Experiential learning: Experience as the source of learning and development*. Prentice Hall, Englewood Cliffs 1984.

[8] C. Argyris, D.A. Schön, *Organizational Learning: a theory of action perspective*. Addison-Wesley, Reading 1978.

assumptions that underlie action are not questioned. Reflection is aimed at correction process (making things better). Double-loop learning involves critical stance toward action, its goals, and assumptions. Reflection is aimed at understanding and evaluation of actions, choices, goals (making better things) which can lead to changes.

Table 1. Definitions of reflection in learning process
Tabela 1. Definicje refleksji w procesie uczenia się

Definition	Source
reflection: "…active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends"*	Dewey J., *How we think: A restatement of the relation of reflective thinking to the educative process.* Heath & Company, New York 1933, p. 9
reflection: "…the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective"	Boyd E.M., Fales, A.W., *Reflective learning: Key to learning from experience,* "Journal of Humanistic Psychology", 23(2), 1983, p. 100.
reflection: "…activity in which people recapture their experience, think about it, mull it over and evaluate it"	Boud D.J., Keogh R., Walker D., *Reflection: turning experience into learning,* Kogan Page, London 1985, p. 33.
reflection-on-action: "…thinking back on what we have done in order to discover how our knowing-in-action may have contributed to an unexpected outcome"	Schön D.A., *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass, San Francisco 1987, p. 26.
critical reflection: "reflection on one's own premises"	Mezirow J., *How critical reflection triggers transformative learning*, [in:] J. Mezirow (ed.) *Fostering critical reflection in adulthood*. Jossey-Bass, San Francisco 1990, p. 18.
intensive reflection: "…involving a change in personal beliefs"	Peltier J.W., Hay A., Drago W., *The reflective learning continuum: Reflecting on reflection,* "Journal of Marketing Education", 27(3), 2005, p. 253.

* K.M. Roessger, *The effect of reflective activities on instrumental learning in adult work-related education: A critical review of the empirical research,* "Educational Research Review" 2014, 13, p. 21.
Source: own elaboration.

J. Mezirow in his transformative learning theory distinguished between reflection that is focused on procedures or methods in problem solving processes (instrumental learning) and critical reflection that challenges "assimilated meaning per-

spectives, which determine what, how, and why we learn"[9]. Only critical reflection can lead to higher-order (transformative) learning.

Definitions of reflection are permanently debatable. Table 1 presents evolution of this concept. While early notions equate reflection with ex post reflection, the latter distinguish reflection focused on questioning existing assumptions (Mezirow's "critical reflection") and reflection as integral element of action.

D. Schön (1983) distinguished in reflective practice two forms of reflection: reflection-in-action and reflection-on-action. Reflection-in-action means reflecting about action while the relevant experience occurs. Much of this reflection remains tacit and even unconscious, though it shapes the way the action is performed. As D. Schön puts it: "In an action-present – a period of time, variable with the context, during which we can still make a difference to the situation at hand – our thinking serves to reshape what we are doing while we are doing it."[10] Reflection-on-action means retrospective analysis, "thinking back on what we have done in order to discover how our knowing-in-action may have contributed to an unexpected outcome"[11].

Most researchers agree that in the work-place settings effective reflection needs social interaction. Critically reflective work behaviour can be defined as "a set of connected activities carried out individually or in interaction with others, aimed at optimizing individual or collective practices, or critically analysing and trying to change organizational or individual values"[12]. As learning ability is the fundamental premise of organizational learning, and reflection is crucial element of learning, reflective behaviour in the work-settings appears to be an important factor of organizational learning and practice-based innovations[13].

[9] J. Mezirow, *How critical reflection triggers transformative learning*, [in] J. Mezirow (ed.) *Fostering critical reflection in adulthood*. Jossey-Bass, San Francisco 1990, p. 18.

[10] D.A. Schön, *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions.* Jossey-Bass, San Francisco 1987, p. 26.

[11] Ibidem.

[12] M. van Woerkom, *The concept of critical reflection and its implications for human resource development*. "Advances in Developing Human Resources" 2004, 6(2), p. 186.

[13] See e.g.: P. Nilsen, P.E. Ellström, *Fostering practice-based innovation through reflection at work*, [in:] H. Melkas, V. Harmaakorpi (eds.), *Practice-based innovation: Insights, applications and policy implications*. Springer, Berlin – Heidelberg 2012, pp. 155-172; G. Messmann, R.H. Mulder, *Reflection as a facilitator of teachers' innovative work behaviour,* "International Journal of Training and Development" 2015, 19(2), pp. 125-137.

2. Needs for facilitating reflective work behaviours

Conditions to achieving reflection in the workplace settings include[14]:

- learner's cognitive skills (i.e. ability to describe an experience, to analyse it and the factors that it influenced, to synthesise knowledge achieved from this experience with one's knowledge system),
- learner's self-efficacy, active engagement, motivation, open-mindedness, wholeheartedness, and responsibility,
- perceived psychological safety, supportive working environments,
- time, place, and "formal opportunity" to spend some time on reflective activity (i.e. discussion);
- organizational culture that legitimizes and fosters reflection in the workplace.

There are many impediments to implementing critical reflection in the workplace settings. One of them is routinisation. As S. Henzer and coauthors expressed it: "Reflection is unlikely to occur in familiar situations in which professionals apply routine work practices. In contrast, new, unexpected or challenging situations trigger reflection processes because they afford professionals the chance to extend the knowledge necessary to manage the situation's demands"[15]. On the other hand, to perceive complexity of the decision context, one needs time, motivation and ability to reflect upon it. As human beings we developed action bias i.e. "a tendency to overreact in the face of risks and uncertainties"[16]. In other words, in uncertain or risky situations people prefer to do anything than nothing (even when doing nothing is the optimal choice), especially when their activity can be noticed or rewarded. In the organizational life this natural bias for action manifests itself in action-oriented culture.

Decision makers are also prone to groupthink syndrome ("a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action"[17]) and cognitive biases (mental shortcuts), for example anchoring (the propensity to rely mostly on chosen, sometimes irrelevant, aspects of situation), confirmation bias (choosing and relying on information that supports one's view while neglecting information that contradicts it), availability heuristic (the inclination to overvalue the weight of more available information).

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[14] S. Hetzner, H. Heid, H. Gruber, *Using workplace changes as learning opportunities: Antecedents to reflection in professional work*, "Journal of Workplace Learning", 27(1), 2015, pp. 34-50; P. Nilsen, P.E. Ellström, *Fostering practice-based innovation through reflection at work*, [in:] H. Melkas, V. Harmaakorpi (eds.), *Practice-based innovation: Insights, applications and policy implications*. Springer, Berlin – Heidelberg 2012, p. 167 and works cited there.

[15] S. Hetzner, H. Heid, H. Gruber, *Using workplace changes as learning opportunities: Antecedents to reflection in professional work*, "Journal of Workplace Learning" 2015, 27(1), p. 36.

[16] S. Tasic, *Are regulators rational?* "Journal des Economistes et des Etudes Humaines" 2011, 17/1, article 3, p. 3.

[17] I.L. Janis, *Victims of groupthink*, Houghton Mifflin, Boston 1972, p. 9.

Concluding, there are many reasons why disposition to reflect cannot be considered as a natural state, especially in the work settings. Overcoming reflection barriers needs education and facilitation.

3. Tools for learning critical reflection and facilitating reflective work behaviours

Critical reflection can and should be trained and fostered. In this section some specific techniques will be characterised. They can be applied in didactic or training courses, in organization development projects and in organizational practice.

Storytelling

Storytelling is a generic tool in dialogical brand of Organizational Development practice[18]. Specific techniques include i.a.: *Narrative Mediation, Open Space Technology, Participative Design, Search Conference, World Café*.

B. Kaye and B. Jacobson[19] identified three crucial elements of storytelling that are:

- the story per se;
- the understanding: the story let the tellers and the listeners understand phenomena or processes that were not known to them before (or were known only superficially);
- the shared meaning: the story and its shared understanding can serve as a metaphor that facilitates understanding of other phenomena.

Conversation is a basic medium of human interactions. This constitutes the power of storytelling as reflection facilitator. As a powerful approach to create common understanding, shared vision, sense-making, and to induce knowledge transfer, storytelling can result in work-related innovations and changes that are down- and self-generated. Shared stories in organizations offer unique metaphors that can help understand and communicate specific events and experiences.

Theatre-based sessions and behavioural simulations

Theatre-based intervention is kind of participatory action research (action and art-based research). In theatre-based sessions participate employees (2–28 persons), researchers, and artists (theatre instructor). The structure of the exemplary intervention is illustrated in Table 2.

[18] G.R. Bushe, R.J. Marshak, *The dialogic organization development approach to transformation and change*, [in:] W. Rothwell, J. Stravros, R. Sullivan (eds.), *Practicing Organization Development*, Wiley, San Francisco 2016, pp. 407-418.

[19] B. Kaye, B. Jacobson, *True tales tall tales: the power of organizational storytelling*, "Training & Development", March 1999, pp. 44–51, as cited in: D.E. Gray, *Facilitating management learning: Developing critical reflection through reflective tools*, "Management Learning" 2007, 38(5), p. 499.

Table 2. The structure of theatre-based intervention
Tabela 2. Struktura interencji opartej na technikach teatralnych

Step	Contents
1. *Generation of themes* (orientation to "Theatrical Images")	Reflecting on still images illustrated by artist and researcher.
2. *Inquiry and reminiscence* (individual story; recalling one's experiences)	Participants describe "images" of their everyday work. The images can be shared with other participants.
3 *Narration and sharing* (collective story; a mixture of the group members' experiences, composed into a story)	Members of homogeneous, small groups (3–7 persons) describe in 3–8 pictures events which lead to problems.
4 *Sharing and exploring* (oral presentations and collective analysis of group stories)	Pointing out the turning points of the stories, identifying alternative chains of events.
5 *Exploring and reflecting* (reflective discussion and reflective questioning)	Outlining the wider context, how the acts of the participants and changes in practices impact on others and vice versa.
6 *Exploring, generating and analysing* (working out what needs to be done differently)	Making social structures visible, mapping alternative practices.

Source: A. Pässilä, T. Oikarinen, A. Kallio, *Creating dialogue by storytelling*, "Journal of Workplace Learning" 2013, 25/3, pp. 166-167.

Theatre-based interventions offer environment for safe exploration of important work-related matters. As A. Pässilä and co-authors put it: "In artful framing, the members of an organisation as learners express and address their own questions, perceptions, and interpretations by doing and by acting"[20]. In this context theatre serves as forum for collective experiences' articulation, and for interaction (discussion).

According to A. Pässilä and co-authors positive outcomes of this intervention included not only practical ideas (what needs to be done, how to deepen co-operation), but also "shared awareness about how one's actions create and transmit social situations"[21].

Similarly to theatre-based sessions in some applications of *behavioural simulation* (also known as "live simulation" or "role-playing") participants assume their own organizational roles and imitate processes and situations from organizational real-life. These carefully prepared simulation workshops are usually parts of expanded developmental interventions aimed at knowledge integration, increasing processes' understanding, business processes' analysis and improvements, knowl-

[20] A. Pässilä, T. Oikarinen, R. Vince, *The role of reflection, reflection on roles: practice-based innovation through theatre-based learning,* [in:] H. Melkas, V. Harmaakorpi (eds.), *Practice-based innovation: Insights, applications and policy implications*, Springer, Berlin – Heidelberg 2012, p. 179.
[21] A. Pässilä, T. Oikarinen, A. Kallio, *Creating dialogue by storytelling,* "Journal of Workplace Learning" 2013, 25/3, p. 167.

edge diffusion, organizational change initiation, enhancing organizational innovation, encourage interaction between organizational units and functions[22].

Behavioural simulation-based interventions consist of series of simulation workshops, each ended with debriefing session. While the first simulation usually show the status quo of the examined process, the subsequent ones explore modifications and innovative solutions. Sometimes it is useful to exchange the participant's roles which enables them to see the process from several points of view. The basic principles of this approach is broad participation and a democratic atmosphere both during simulation and the following debriefing sessions.

Simulation games

Simulation can be simply defined as "goal-directed experimentation with dynamic models"[23]. When this dynamic model includes real people and fits the definition of a game[24] it can be termed simulation game. V. Peters and M. van de Westelaken define a simulation game as "a system (model) of actors (roles) and the interrelations between them (regulated by rules), pursuing a specific goal"[25]. A serious[26] simulation game session consists of three stages:

- introduction (briefing) and preparation,
- simulation (game play),
- debriefing

and is monitored by game facilitators (arbiters, instructors).

Whereas the aim of the first stage is mental and emotional preparation for the game session, the last stage is considered as the crucial stage of a game session. The main goal of this stage is to support reflection on finished experience. As T. Ryan expressed this "the power of simulation games lies to a large degree in the success of the debriefing session"[27]. The three main phases of game debriefing are depicted in

[22] K. Korhonen, P. Pekkanen, T. Pirttilä, *Role game as a method to increase cross-functional understanding in a supply chain*, "International Journal of Production Economics" 2007, 108(1), pp. 127-134; R. Lavikka, R. Smeds, M. Jaatinen, *A process for building inter-organizational contextual ambidexterity*, "Business Process Management Journal" 2015, 21(5), pp. 1140-1161.

[23] T. Ören, *The many facets of simulation through a collection of about 100 definitions*, "SCS M&S Magazine" 2011, 2(2), p. 90.

[24] According to J. Juul's definition, a game is "a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable" (J. Juul, *The game, the player, the world: looking for a heart of gameness*; [in:] M. Coiper, J. Raessens (eds.), *Level up: digital games research conference proceedings*, Universiteit Utrecht, Utrecht 2003, p. 30).

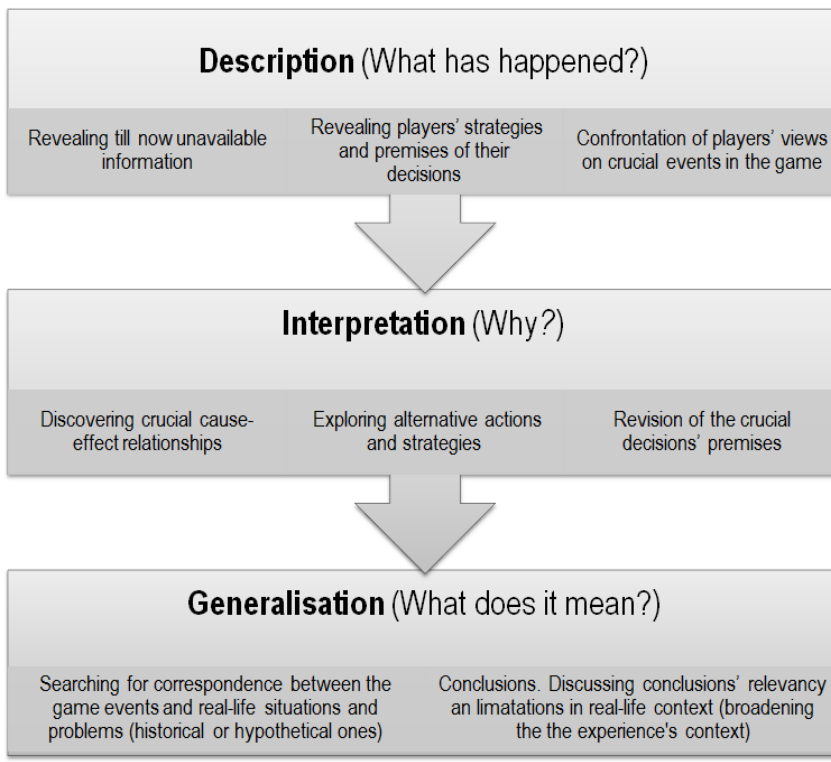
[25] V. Peters, M. van de Westelaken, *The management approach: Thinking in systems*; [in:] L. de Caluwé, G.J. Hofstede, V. Peters (eds.), *Why do games work? In search of the active substance*, Kluwer, Deventer 2008; p. 157.

[26] A game played with intentional purpose other than entertainment.

[27] T. Ryan, *The role of simulation gaming in policy-making*, "Systems Research and Behavioral Science" 2000, 1, pp. 363.

Fig. 1. Some games need an additional phase which occurs before *Description*. This is a desensitization phase (a cooling down session) during which participants are helped to leave their roles. This phase is necessary if the game triggers strong emotions (anger, frustration, envy).

Figure 1. Game debriefing model
Rysunek 1. Model podsumowania rozgrywki



Source: A. Balcerak, J. Woźniak, *Gry menedżerskie*, Gdańskie Wydawnictwo Psychologiczne, Sopot 2016, p. 114.

Simulation games are used mostly as didactic and training tools, but also – as vehicles for developmental interventions in organizations. In the latter usage there is place for co called *specific games* (tailor-made games) that represent given organization/industry/market.

Simulation games offer safe experimental environment. Negative consequences of players' decisions do not affect any real organisation. Participants' curiosity is not hampered by fear of error, so they can learn from errors and mistakes. They usually generate involvement, positive attitudes and high motivation of participants. High involvement promotes learning and helps to personalize game-based conclusions.

A. van Bilsen and co-authors recapitulated unique features of simulation games as follows: "Simulation games are probably the only decision support method that can realistically incorporate human players and social interactions, physical and social rules, mental and computer models, as well as individual and collective goals"[28].

Conclusions

The generic tool for reflection facilitation is a story. The specific methods outlined in the previous section differ in chosen form for that tool. Whereas storytelling is established on pure narration, the stories plotted during theatre-based sessions are "dressed" – exposed in dramaturgical frames, which makes them open for interpretation. Dialogues developed during these sessions use metaphorical constructs (images, scenes), they can express emotions and feelings in a safe way. In both theatre-based sessions and behavioural simulations action is accompanied by narratives. In massive realistic behavioural simulations narratives can completely substitute action, thus the story are far from hidden. On the contrary, both "tellers" and "listeners" wish to give/take the whole of their stories.

In a simulation game session every player get his/her own story which is deliberately hidden (at least partly) from the other players till the end of the game. Thus, to understand causes of important game events, premises for competitors' action, and – in consequence – the game's results, they need sharing and completing their stories.

Table 3 compares three reflection facilitators according to the kind of experience, reflection triggers, and reflection forms. Instead of pure or "dressed" stories, simulation games offer mostly motives for story completion in order to understand causes of game results. These motives trigger critical reflection. Participants of realistic behavioural simulations inform each other "as is" and the presented state causes the question "Why like this?" and exploration of "as could be". Reflection is provoked by recognition of need to change examined process. In theatre-based sessions critical reflection is triggered by need to understand whole story and its premises.

[28] A. van Bilsen, G. Bekebrede, I. Mayer, *Understanding Complex Adaptive Systems by playing games*, "Informatics in Education", 2010, Vol. 9, No. 1, pp. 9-10.

Table 3. Comparison of reflective learning facilitators
Tabela 3. Porównanie technik wspomagających refleksyjne uczenie się

Technique	Experience	Reflection in-action triggers	Reflection on-action	
			triggers	forms
Storytelling	storytelling, story listening	the story's plot	the story's contents and its interpretation	discussion
Theatre-based session	"theatrical images" describing/ performing, interpreting	the performance's events; interactions, emotions	the performances' events interpretation; recognizing the need for story explanation	"reflective discussion"
Behavioural simulation	role-playing session	the simulation's events; the simulation's dynamic; interactions	the simulation's events understanding; recognizing the need for story change	debriefing
Simulation game	game session	the game's events; the game's dynamic; interactions; scores	the game's outcomes, recognizing the need for story completion	debriefing

Source: own elaboration.

These distinctions may cause differences in effectiveness of these techniques in concrete didactic or developmental contexts. This implies need for further studies and investigations. Nevertheless they should prevent assumption of equivalence of these techniques.

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Author's resume:
Ph. D. Alicja Balcerak, *lecturer and research associate at Wroclaw University of Technology, Faculty of Computer Science and Management. Her research interests include interactive simulation, especially management games, knowledge management and organizational learning.*

Nota o Autorze:
Dr inż. Alicja Balcerak, *adiunkt na Wydziale Informatyki i Zarządzania Politechniki Wrocławskiej. Jej zainteresowania badawcze obejmują symulację interaktywną, zwłaszcza gry menedżerskie, zarządzanie wiedzą, uczenie się organizacyjne.*

Contact/Kontakt:
Alicja Balcerak
Politechnika Wrocławska
Wydział Informatyki i Zarządzania
ul. Wybrzeże S. Wyspiańskiego 27
50-370 Wrocław
e-mail: alicja.balcerak@pwr.edu.pl