REFLECTIVE LEARNING MODELS IN THE CONTEXT OF HIGHER EDUCATION: CONCEPT ANALYSIS

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Abstract

The article presents reflective learning models in higher education. While presenting the reflecting possibilities in teaching / learning in higher education, researchers refer to Kolb's model, which does not elaborate the reflection as an essential process and feature by applying it in higher education. The researchers view reflecting / reflective learning as a basic for successful learners' activity analysis and learning from one's own experience. Research focus in the article is conceptual relationship between reflective learning models and context of higher education. The aim of research is to substantiate the relationship between reflective learning and context of higher education by comparing reflective learning models and illustrating possibilities of implementation of reflective learning in higher education. Research design: conceptual modeling. Method: conceptual analysis. Research outcomes: integration of models while organizing teaching/learning at the higher education enhances the interrelationship between learning experience and reflective activity. Reflective learning as a continuous educational process at the individual and collective levels encompasses the content, process, premises, and is an endless loopy process. Such process starts with reflection for action, orientation towards links of new information and continues with reflection in and on action.

Key words: reflection, reflective learning, higher education, concept analysis

Introduction

Scientific society has paid a lot attention to training and development of young specialists at a higher education institution, e. g. teachers applied different teaching methods, modelled educational strategies, emphasised students' learning by separating it from teaching, etc. During most decades, researches of education science have been directed to the analysis of knowledge rendering, which is done by more experienced people to people who know less (Strauss et al., 2002). At present implementation and development of reflective learning in the context of higher education

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is the common aim of most educational programmes at higher education institutions. Reflective learning and development of students' reflection more often become the focus of research: reflective practice of studies in the context of transformation of higher education paradigm (Baranauskienė, 1999, 2000, 2003), students' empowerment for motivated studies by referring to problem-based teaching and reflections (Žydžiūnaitė, 2001), development of self-reflection skills (Ivanauskienė, Liobikienė, 2005), teacher's reflection in an academic situation (Kepalaitė, 2005), modelling of meta-cognitive strategies at university studies (Zuzevičiūtė, 2005), reflective teachers and learning activity (Stanikūnienė, 2006; Jucevičienė, 2006). The foreign scientists analyse the phenomenon of reflective learning more thoroughly (Boyd, Fales, 1983; Usher, 1985; Atkins, Murphy, 1993; Calderhead, Gates, 1993; Loughran, 1996; Cowan, 1998; Brockbank, McGill, 1998; Moon, 1999; Rogers, 2001; Ramsey, 2003; Osterman, Kottkamp, 2004; Johns, 2004; Boud et al., 2005, etc.). In the works of the above-mentioned authors the concept of reflective learning is most often used to define teaching / learning, during which reflection is applied as one of the main means to analyse the experience. However, comparison of different reflection models and analysis of its practical application by substantiating it are missing because this would facilitate their direct transformation to educational process of learners in higher education both in theoretical and practical studies. During reflective learning it is sought to identify, assess and change the essential beliefs and premises, theories, which directly influence actions. Knowledge cannot be simply transformed. In order the learning would take place, it is important to be motivated to learn and be active in projecting learning direction through advancements.

The character and organization of research on reflection modelling and implementing into curriculum (Loughran, 1996; Cowan, 1998; Moon, 1999; Johns, 2004; Boud et al., 2005) is determined by political and social context of a country, traditions and aims of a higher education institution. The analysis of most works (Whitaker, 1995; Moon, 1999; Jarvis, 1999, 2001; Sugerman et al., 2000; Teresevičienė, Gedvilienė, 2001; Ivanauskienė, Liobikienė, 2005, etc.) allow stating that coherence of reflective learning concept to the conception of Kolb's (1984) experience-based learning (which emphasises the importance of learners' experience in educational process) dominates. However, it does not elaborate reflection as essential element in learning from own experience. Such concept of reflective learning can be treated as insufficient in disclosing possibilities of reflection application in higher education.

Research question: What are the key stages of reflecting and reflection in higher education? **Research focus** is conceptual relationship between reflective learning models and context of higher education.

The **aim** is to substantiate the relationship between reflective learning and context of higher education by comparing reflective learning models and illustrating possibilities of implementation of reflective learning in higher education.

Research Methodology

Sample

Selection of scientific literature resources had been criterion-based. The criterions were the following: (1) resource should be scientific (based on research or conceptual evidence and published as article, monograph, PhD dissertation or research report); (2) keywords for selection were reflection, reflecting, higher education, learning, teaching by integrating them as a complex words, where reflection or reflecting were the leading terms, e.g. reflection and higher education, reflecting and higher education, reflecting and learning, etc.; (3) resource could be written in Lithuanian or English languages.

Method

In this article as a method was employed a review of the literature (Stumme et al., 1998; Taylor, 2010). A literature review is an account of what has been published on a topic by accredited scholars and researchers. In writing the literature review, the purpose is to convey to reader what knowledge and ideas have been established on a topic. As a piece of writing, the literature review is defined by a guiding concept (e.g., research aim, the problem the author discusses). It is not just a descriptive list of the material available, or a set of summaries. The performed steps of the review of the literature were following (Taylor, 2010): (1) organizing the literature selection and review by relating it directly to the research question the author develops; (2) synthesizing results into a summary of what is and is not known; (3) identifying areas of controversy in the literature; (4) raising questions that need further research.

A literature review is a piece of discursive prose, not a list describing or summarizing one piece of literature after another (Stumme et al., 1998; Taylor, 2010).

Reflection – the Premise for Educational Transformation of Experience into Learning

Philosophy of learning based on reflection begins from everyday experience at a higher education institution. Reflection, which can strengthen learning and corporate personal as well as professional efficiency help to outlive and to give a sense of experience; thus analysis of experience has to be one of the main goals of learning at a higher education institution. Reflection activates learning, self-analysis, as well as solution of problems. It is important and valuable both at the beginning of experience accumulation as well as later, i.e. when obtained information is being systemized and by analysing own psychic processes and states that formed during learning. The ability to speak for oneself and others what we have experienced allows reacting and rewriting scenarios of everyday life; it enables forming schemes and narratives of mental reference, which give meaning to our and other lives (Schratz, Walker, 1998). Modern paradigm of learning and its implementation in higher education transform the settled viewpoint to knowledge production when students 'are only passive status quo knowledge recipients' (Baranauskienė, 2003, p. 61). A learner when interacting with environment on the basis of his / her previous experience creates his / her individual knowledge. It is not important how distinctly and precisely the rendered knowledge will be related to possessed beliefs and understanding by creating own personal implication (Jérôme, 2006).

Reflection should be integrated into entire education process by not separating it from self-education aims. Reconstruction of experience is central, as well as it is a continuous aim. In order learners to have achieved this aim, they should reflect by analyzing their values, attitudes and emotions, which in their turn transform the understanding as well as give new meanings for ideas by relating them to previous knowledge and obtained information. Reflection, when learning from own experience, stimulates taking of responsibility for one's actions and decisions. It is an active creation of information, its revision and creation of new theories. In acquiring only theoretical knowledge, the ability to learn by oneself is lost, and this means that reflective abilities do not form and 'the essence of a reflective method is forgotten, i.e. 'learning is not a result but a process [...] when we reflectively think over not only positive but also negative experience we understand our weaknesses and strengths' (Baranauskienė, 1999, p. 65–66). Jarvis (1999), contrasting impulsive and reflective activity of a learner, states that reflecting students are subject to think over more alternative strategies before decision-making in theoretical and practical studies at a higher education institution. Impulsive students, having approached problem-solution, try it. However, they think it spontaneously do not reflect in projecting possible choices as well as performing their activity.

Reflection should be related to the ability to learn life-long as well as be considered as one of the most essential premises for development of ability to learn, which creates conditions to clearly

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realize own experience, to disassociate from every day events and usual reality of things. Possibilities become one of the most important education aims, which induce feeling, experiencing, and understanding. Reflective learning is transformational, enabling students for their personal unrestricted independent activity by analyzing own experience, habits of learning, as well as relating theoretical and practical knowledge, developing abilities to identify and solve problems, changing own attitudes and becoming more tolerant (Morrison, 1996). Reflection as component in reflective learning emerges from professional experience as well as it involves reflective thinking in forming a situation when it is referred to personal system of viewpoints, attitudes and values, constantly leaving an open possibility re-form. Reflective thinking is closely related to critical thinking, as Lipinskienė (2002) states; the latter is the basis of reflective thinking. The attention should be paid so that Schön (1991) calls this activity as reflective practice, which is a 'key' attribute of reflective learning. Following Schön's ideas, Barnett (1992), Brockbank et al. (2002) state that all students of a higher education institution can exercise reflective practice, which, according to Balčiūnienė (2006), creates conditions to observe the change of students' development as well as provides teachers with new insights how to improve the study subject being delivered and to strive for teaching / learning quality. Alongside it is the process of reproduction of past experiences, individual expression and transformation of professional knowledge to specific situations and contexts (Yip, 2006). Reflective learning is an active activity and interest is not only in means and technical efficiency, but also in learning aims and its impact (Pollard, 2006). The analysis of scientific sources (Schön, 1991; Calderhead, Gates, 1993; Loughran, 1996; Brockbank, McGill, 1998; Moon, 1999; Osterman, Kottkamp, 2004) Boud et al., 2005) showed that by reflective learning a student is empowered to coordinate theoretical and practical knowledge, to create own personal theories and understanding about future professional activity at a higher education institution.

Models of Reflective Learning

Different models of reflection for analysis of experience are offered in scientific literature sources. Different authors mention the latter as the models of learning from own experience, reflective thinking / learning or activity. In planning students' learning at a higher education institution it is possible to use successfully schemes of these models when formulating assignments for theoretical lectures, seminars and practical classes, as well as when organizing students' independent work or practical classes. In analyzing different models of reflective learning and their stages, most authors point out inter-coordination of practical knowledge and its relation in this process (Shön, 1987, 1991; Baranauskienė, 1999; Sugerman et al., 2000; Jarvis et al., 2004; Ivanauskienė, Liobikienė, 2005). Theoretical and practical knowledge are two inseparable parts of cognition process: theory allows finding new ways for practice, and practice contributes to improvement of practice (Šernas, 2006). Thus, in any stage of own performed activity, learning / teaching and reflections, theoretical basic of sciences and practical as well as true-life experiences always entangle. Rogers (2001), having performed the critical analysis of reflection concept and its application in higher education, draw a conclusion that scientists use complicated terms by striving to define reflective processes: it is reflection in action, meta-cognitive reflection, reflective learning, critical reflection, reflective thinking. Some authors use the term of reflection alternately with terms of introspection (Sherman, 1994, in Rogers, 2001) and cogitation (Holland, 2000, in Rogers, 2001). The analysis of concepts discloses important common features in defining reflective process. Reflection is a cognitive process or activity (Dewey, 1933; Shön, 1987; Loughran, 1996; Cowan, 1998). Alongside the cognitive aspect Boud et al. (2005) point out the importance of experienced emotions in reflective learning.

Dewey (1933, 1938) is recognised as the main creator of the *reflection* concept (Hatton, Smith, 2006). Dewey (1933) defines learning as dialectic process, which integrates experience and ideas, observations and activity. 'A routine action' contrasted to 'a reflective action', where the latter involves the frame to constantly assess and develop oneself 'a routine action' is static, not resounding

to changing priorities and circumstances (Pollard, 2006). The concept of reflection in the Dewey's model is compared to a research process. Learners reflectively think over and analyse their activity by checking the hypotheses they formulated (Ramsey, 2003). Reflective learning is understood as problem solution, a way of thinking in order to solve an issue, which contains active convergence, as well as careful coordination of thoughts. Dewey's main ideas are fundamental and show that reflection can be treated as active and deliberative cognition process, which consists of the sequence of interrelated thoughts by considering the reasoning beliefs and knowledge. In general, reflective thinking solves practical problems and it allows doubting and addling before making possible decisions.

Atkins, Murphy (1993), Moon (1999), having performed the analysis of the different reflection processes presented by several authors (Boyd, Fales, 1983; Gibbs, 1998), distinguish three main stages that are repeated in all models. **The first stage** of reflective process is *emergence of unpleasant feelings and thoughts due to the experience being outlived and the need to solve the situation that caused these experiences*. This emerges from understanding that in certain situation it is not enough to explain what has happened through applied knowledge. Boyd, Fales (1983) name this as the stage of emergence of internal discomfort feeling. **The second stage** is *critical and constructive analysis of a problem or specific situation as well as own feelings*, which involves possessed and necessary new knowledge to solve a problem. **The third stage** is *development of new viewpoint to a situation* by projecting possible ways for acting at particular future situations. In this stage emotional and cognitive changes, which lead to behaviour changes, take place.

The model of reflective learning by Boud et al. (2005) most thoroughly illustrates the process of reflection on action when experience is turned into learning. Three main stages of reflection are distinguished in the model: return to experience, attention to feelings and repeated assessment of experience (see Figure 1).

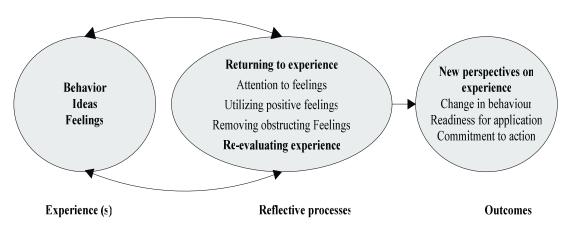


Figure 1. Reflection process (According to Boud et al., 2005).

Boud et al. (2005) state that one of the ways to stimulate learning is to strengthen interrelationship of learning experience and reflective activity, which forms by dedicating some time for reflection in learning activity. *Firstly* it is sought by dialogue when thoughts are expressed and the acquired experience is shared within a group; *secondly*, by individual writing where events and experienced reactions are described. Positive states stimulate reflection, for example, a successfully performed assignment, which earlier seemed to be overwhelming. This can stimulate to assess other assignments repeatedly as well as to plan other experiences. Personal synthesis of knowledge, integration and validation of personal knowledge, new emotional state or decision to get involved into a future activity can become a result of reflection.

At the first stage – *return to experience* – the experience is a new reflected and analysed by attempting to reproduce and understand what reactions as well as reasons induced to behave one way

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or another. Identification, denomination as well as analysis of the feelings caused by the experience are important at this stage. Learners who do not observe and do not analyse emotional dimension of their experience can harm the value of their reflection in limiting it by any aspect of reaction to environment and thus creating artificial obstacles for their reaction to experience.

At the second stage – attention to feelings – two aspects become important: employments of positive feelings and elimination of inadequate ones. Subject to circumstances and intentions it is important to analyse own emotional experiences by finding ways to avoid them or to maintain and strengthen them if the latter are positive. In experiencing positive feelings both cognitive and emotional areas of learning are being developed. It is important to pay attention to the impact of the processes taking place in this stage upon experience learning as well as to how an individual could learn to handle own reflective activities (Boud et al., 2005). At the third stage - repeated assessment of experience – once more it is getting deeper into experience by relating new knowledge to the possessed and by integrating the first one into learner's conceptual scheme. Such learning is applied in order to check its authenticity and to plan further activity, during which this learning is implemented in professional activity. At the last stage - results - four aspects of reflection, which can improve results, are distinguished: association – relation of new data to already known; integration – search of relations among these data; validation – identification of authenticity of emerged ideas and feelings; assimilation – assumption of knowledge for oneself. In summary, it is possible to state that in this model the reflection process can take place consistently. However a lot of other cycles, important elements related to repetitions of especially important components can emerge as well.

The model of experience learning by Kolb (1984) is the most popular and is applied in the practice of a higher education institution. Cowan (1998) points out that the model usually is referred to Kolb (1984); however the origin of the model is attached to Lewin (1951). The Kolb model is effective in the cases if one is able to get involved into solution of most different situations completely openly and without preconceived attitudes as well as to acquire new experience; to observe oneself on the outside, to consider own experience in most different aspects, to reflect it; to form concepts and principles that generalize what has been observed; to apply theoretical knowledge to solve problems as well as to accumulate new experience (Linkaitytė, 2003). Learning is understood as four-stage cycle: relevant experience, reflective observation, abstract conceptualisation and active experimentation. These abilities involve two dimensions of cognitive development and learning: relevant abstract dimension and active / reflective dimension. The essence of the model is learning cycle when experience is turned into concepts (theories, conceptions), which in their turn into guidelines to choose new experiences. Direct relevant experience is the basis of reflective observation. Learning material consisting of different information, facts or events is conveyed to students. Identification of a problem is the main factor, which induces moving forward by the cycle to reflective observation. Scientists (Moon, 1999) discuss the importance of processes of particular experience, when experience can be interpreted as physical involvement into situation - 'pure experience' - learning in practice or as conceptual material, which has been perceived at a lecture. It is recognized that experience in learning process should be stated as sustainability of 'pure' and conceptual material, i.e. conditions to transform conceptual experience into pure experience would be created. The stage of reflective observation in the Kolb's cycle is essential because students reflect their activity by collecting information to expand and to understand experience; they analyse their behaviour, viewpoints, aims, feelings and experiences. Other (e.g.: Boyd, Fales, 1983; John, 2004) models of reflective / experience learning use the concept of reflection. In the stage of abstract conceptualization a student elaborates new ideas by projecting the perspectives, which would help more effectively solve problems in the future: theoretical and practical knowledge are related, new information and ideas are integrated into practice (Lipinskienė, 2002). The stage of active experimentation – is application and checking of new ways, premises and ideas by active and purposeful acting at particular practical situations. Kolb's (1984) model of learning from experience, called learning cycle, begins with primary experience and after reflective observation and conceptualization the idea, which can stimulate experimentation and new experience, is being formed. According to King (2002), in the cycle of learning from experience it is possible to identify three different types of reflection: reflection in action, reflection on action, and reflection for action (see Figure 2).

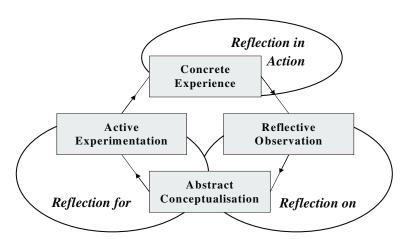


Figure 2. Integration of experience learning and reflection models (According to King, 2002).

Schön's (1987) reflection in action can be related to a particular experience, which expresses reflection that reflects implicit / tacit knowledge applied in activity by transferring experience. Newly outlived experiences as well as future inevitable experience are considered. It involves implicit / tacit thoughts and their analysis. This is reflection-oriented to more innovative or at least deliberately thought-out activity. Though it can become the reason of active experimentation at the place, reflection in action has great importance, but it is least presumptive that it will be referred when learning and performing such assignments as reflective writing. Schön's (1987) reflection on action is the first stage of creation of meaning after emergence of experience. In fact one turns back to the action of previous experience, tries to analyse and to sum up the previous experience and thus to make generalizations, which will be useful in the future. Such reflection can also manifest in the stage of reflective observation where it fluctuates from substantiation of experience importance to identification of problems or questions that emerge from experience as well as in the stage of abstract conceptualization, where concepts and hypotheses are being formulated and being applied. Reflection for action (Cowan, 1998) is naturally indicated at the cycle's stage of active experimentation where meanings of ideas, conceptions are being checked, as well as types of problems, which were hoped to have been solved more effectively than in the past, were cogitated. This is the reflection, which determines priorities for future learning by identifying needs, objectives and goals, which afterwards will remain in the memory of a learner. However it can also manifest in the cycle of hypotheses' formation, i.e. in the cycle of abstract conceptualisation. These two reflection forms -reflection on action and reflection for action – can most successfully be implemented and applied for development of students' reflective competence as well as stipulate the reflective learning process at a higher education institution.

In summary it is possible to state that in the model of learning from experience reflection is a component of certain sequence, which combines certain experience and approaching generalization. According to Schön (1987), reflection (it does not matter which variation is chosen) is unfinished activity even though for short time withdrawn from an action by possessing outcomes that really are not predicted in advance, but they are thought-out during the process and which existence is not necessary for an action to take place. At a higher education institution, when implementing the latter model for theoretical and practical education of students, specific experience, reflective observation, abstract conceptualization and active experimentation is 'yet implemented hard enough' at traditional university studies (Alifanoviene, 2005, p. 51). Kolb (1984), according to Cowan (1998), does not discuss the

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character of observation and reflection stage in detail by disclosing the very reflection process and its elements; thus this model is often mentioned as not thorough enough and not disclosing the very reflection process, which is almost the most important in the cycle of learning from experience. Cowan (1998) also states that endless movement of the Kolb's cycle is oppressive and misleading from the beginning, which is hard to be identified. Thus in order to present a clearer scheme of analysis, he presented the diagram, which integrates Schön's concepts and cohesions postulated by Kolb. This diagram is a substantiated practical model, which explains or at least predicts how learning in practice can take place and be influenced by it (see Figure 3).

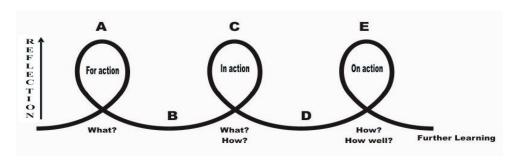


Figure 3. Reflection diagram (According to Cowan, 1998).

Cowan (1998) elaborates that every student when learning possesses very important previous experience. Its part is general 'true-life' experience, which students acquired by learning at school before studies at a higher education institution. A wide spectrum of previous situations of learning acquired in studying at university makes a significant part of experience. When learning, students reflect their previous experience by getting ready for activity, i.e. they perform a specific assignment or solve a problem (reflection for action). During reflection for action (see Figure 3, Loop A) students are stimulated to analyse and reflect their activity, which is well thought (Loop B). Students strive to relate new information to what they have already learnt, and, having analysed it, to use what can be necessary to perform a new activity. When acting, it can be suggested to analyse and to try necessary ideas, which a teacher or colleagues-students present and which emerge from corporate group reflection experience. In transitional reflection in action (Loop C), however, it is in principle analytical though an evaluative element is envisaged. The essence of analytical reflection - is to find answers to the following questions: 'How have I to do it?' and 'How should I do it?' Reflection is valuable namely due to its closeness to an action. During it, classification and generalization takes place by defining what has been learnt. Advantages, difficulties and their reasons, the need for help at different stages of assignment accomplishment, as well as limitations, which have to be eliminated, are identified and named. The latter sequence of the Cowan's (1998) diagram corresponds two cycles of Kolb's (1984) learning from experience: reflective observation and abstract conceptualization. In the next stage (Loop D) action-consolidating material, which is offered by teachers, is considered. Learners, by using the provided material, plan and apply the offered ideas in practice, and this is the essential moment in this stage of activity, which corresponds the cycle of abstract conceptualisation in the Kolb's (1984) model. Students are motivated to correct drawbacks, which they have observed in learning, by trying to consolidate reflective analysis of achieved progress, but yet without final reflection of own activity performance. Though distantly but students already face the opportunity to apply new acquired knowledge in practice (Loop E). This is reflection activity concentrated to what every student have learnt about learning, how he / she reflected his / her thinking because it is being oriented to reflection in comparison to former activity and thinking at previous loops. In this loop the intervened learning and development is identified and defined, i.e. such learning, which has to be continued and the knowledge acquired during reflection has be applied for learning process in the future. A possibility that the last loop of action reflection is always accessible; if the need or aim occurs, reflection for action can change. If it happened, a learner would move to another sequence, in which his / her activity would previous experience integrating into the next sequence. Thus the Cowan's (1998) diagram is not closed and final, opposite than the Kolb's (1984) model. When thinking reflectively, it is important not to make preconceived decisions based only on own experience; to the contrary, it is necessary to critically estimate a situation (event), to give a sense and to assess it by considering new theories, as well as identifying its strengths and weaknesses. Johns (2004) formulates a lot of questions, which help to follow certain consistency in reflection process, in the model of structured reflection (see Figure 4).

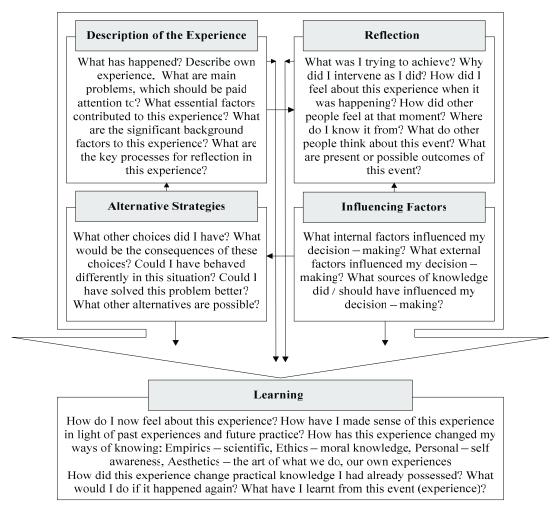


Figure 4. Model of structurized reflection (by Johns, 2004).

The questions make five separate blocks (description of a situation, reflection, alternative strategies, influencing factors, learning), which are consistently ranged one by one. Four blocks of the questions are integrated into the entirety by the fifth block – *learning*. Learning results are identified not only in analysing and searching for an answer to the questions of the last block, but also they emerge in performing the description of a situation.

The use of models or schemes for inducement of students' reflective learning is not answering particular questions, but it is support to disclose the acquired experience by relating theoretical and practical knowledge, by analysing experience and by identifying what has been learnt. As the models are descriptive but not normative, it is meaningful to treat them as filters of the process, which allow seeing what can be learnt. Integration of models' schemes in organizing students' teaching / learning at a higher education institution induces students' reflective learning, as well as it strengthens the interrelationship of learning experience and reflective activity, which forms in dedicating enough time for reflection in learning activity.

Conclusions

Reflection oriented to integration of theory and practice as well as contemplation of learning activity at theoretical and practical studies creates premises for improvement of 'structures' of the possessed knowledge and understanding of learners, which consist of interrelated and interdependent dimensions. *The first dimension* is integral and involves coordination of possessed true-life practical experience and theoretical knowledge acquired at university. *The second dimension* creates conditions for educational environment and activity being performed to reflect as well as involves elements of theoretical and practical learning contexts. *The third dimension* involves interactions with participants of educational process and directly influences students' involvement into reflection. The latter dimension creates premises for the *fourth dimension* to form – formation of professional identity of a student as future specialist and his / her autonomy when studying.

Reflective learning as conception is transformational process of future specialists at a higher education institution being actualised at theoretical studies in two levels: *personal* (individual reflection) level by reflecting theoretical material of learning and by creating individual knowledge related to outlived experience; *interpersonal* level (corporate reflection) with teachers initiating and supporting reflection processes in providing and getting feedback as well as colleagues-students together reflecting outlived experience. Reflection is a continuous process, which is inseparable from the transfer of theoretical knowledge in practical studies by acting individually and reflecting activities being performed in interactions with colleagues, teachers-practitioners, children, teachers and relatives.

Reflective learning as continuous educational process taking place at individual and corporate levels involves *content* (analysis of a problem / situation by projecting action ways and strategies), *process* (choice of problem-solution strategies and assessment of their effectiveness), *premises* (analysis of personal premises oriented to decision-making) and it is endless loop process beginning from reflection *for action* by orienting to links of new information in reflecting with what is known as well as projecting what can be necessary to perform new activity. This process continues in the *activity* when a person reflects present situation as well as orients to difficulties and their reasons by estimating the need for help at different stages of assignment accomplishment, identifying strengths and weaknesses of actions being performed. Reflection *on action* continues after the activity when a learner retrospectively reflects and assesses acquired new understanding by reflecting in action as well as what he / she can apply in his / her further learning.

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