



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

CRITICAL REFLECTION IN PORTFOLIOS

Involving university teachers in the research of teaching and learning in their discipline

Feixas, Mònica (1)
Zürich University of Teacher Education
Zentrum für Hochschuldidaktik und -entwicklung
Lagerstrasse, 2
8090 Zürich (Switzerland)
monica.feixas@phzh.ch

Feixas, Mònica (2)
Universitat Autònoma Barcelona
Facultat Ciències de l'Educació
Departament Pedagogia Aplicada - Edifici G6
Pl. del Coneixement
08193 Bellaterra (Cerdanyola del Vallès)
monica.feixas@uab.cat

Engfer, Dagmar (2)
Zürich University of Teacher Education
Zentrum für Hochschuldidaktik und -entwicklung
Lagerstrasse, 2
8090 Zürich (Switzerland)
dagmar.engfer@phzh.ch

Zellweger, Franziska (2)
Zürich University of Teacher Education
Zentrum für Hochschuldidaktik und -entwicklung
Lagerstrasse, 2
8090 Zürich (Switzerland)
franziska.zellweger@phzh.ch

Zimmermann, Tobias (2)
Zürich University of Teacher Education
Zentrum für Hochschuldidaktik und -entwicklung
Lagerstrasse, 2
8090 Zürich (Switzerland)
Tobias.zimmermann@phzh.ch



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

1. ABSTRACT

Our research project aims at assessing the quality of reflection in the portfolios and projects of the participants of an academic development programme. On this basis we aim to further develop effective interventions to foster a reflective attitude. This contribution summarizes the main models of reflection in teacher education, identifies the four features of diverse models that best fit the analysis and, finally, it proposes a coding scheme for an analysis of reflective writing in portfolios and projects.

ABSTRACT:

El nostre treball té per objectiu avaluar la qualitat de la reflexió en els portafolis i projectes dels participants d'un programa de formació pedagògica. Això ens permetrà desenvolupar intervencions efectives per promoure una actitud reflexiva envers la docència universitària. Aquesta contribució resumeix els principals models de reflexió en formació docent, identifica quatre propostes extretes de diferents models i, finalment, proposa un codi per analitzar la reflexió escrita dels portafolis i projectes.

2. PARAULES CLAU: 4-6

Esriptura reflexiva, portafolis, desenvolupament acadèmic, formació docent, anàlisi de la reflexió, models de reflexió

3. KEYWORDS: 4-6

Reflective writing, portfolios, academic development, teachers' training, analysis of reflexion, reflexion models



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

DEVELOPMENT:

Introduction

Putting students at the centre of the learning process creates new requirements for academics. First, it demands that they use teaching approaches that they may not be familiar with. Second, academics are instructed to design learning objectives and assessments, give and respond feedback, embed an increasing range of skills into the curriculum, maximize the opportunities associated with classroom diversity and consider ethical issues. And third, if teachers are to put students and their learning at the centre of their teaching, they must also learn to inquire into their students' learning. It is not feasible to expect academics to carry out these teaching roles effectively without appropriate support in the form of training and development programs.

The Centre for Teaching and Learning in Higher Education at Zürich University of Teacher Education (PH Zürich) delivers different programmes to teachers of Universities of Applied Sciences and Teacher Education. The goal of the Certificate of Advanced Studies (CAS) in Higher Education, consisting of 10 ECTS, is the professionalization of academics as teachers to enhance their students' learning. It consists of a competency-based approach which requires detailed evidence as to how teachers are addressing the areas of planning, delivery, assessment, coaching, and transfer. The programme provides support to master basic educational principles and to make a conceptual and practical shift to more student-centred approaches to teaching. A further requirement is a piece of practitioner research, in the process of which participants explore on an aspect of their practice, or a reflective portfolio where participants reflect about the transfer of acquired competencies in ways that suit their own disciplinary context.

Reflection about the teaching and learning process, a learned skill involving complex critical thinking, is viewed as an essential component of the development of their professional practice as teachers. Our intention is to show academics the value of an inquiry-based approach to teaching and to teach them how to systematic analyse a certain innovation or to implement a small-scale research study in their discipline. We aim our participants to be more evidence-based in making their decisions about the effects of their teaching interventions, and to write and share these reflections with their peers.

Therefore, in our CAS academics learn to inquire into their students' learning, to become aware of what students expect and care about, how they perceive the tasks and the learning environment, the approaches they take to learning, and how well they perform. In order to do so, we help our participants go through a process of reflection about their teaching practice and to gather data and evidences from their teaching practice and implemented innovations for



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

qualitative decision-making. Building on research evidence related to teaching and learning creates a base for improving existing practice.

Our research questions are:

- How is reflexivity or a reflexive practice made visible in the portfolios and projects?
- How can reflexion in portfolios and projects be assessed? What dimensions or levels of reflexion do we look at?
- At what level of reflexivity do our participants operate? How can we infer from the research projects and portfolios, the reflection process that has taken part in the participants' minds?
- What model/s is/are useful to analyse the levels of reflexivity in our portfolios and projects to support the participants during the CAS?

Our study aims at assessing the quality of reflection and the diversity of pedagogical views in the portfolios and projects of the participants in a systematic way. The specific objectives of our research are: 1) to better understand the concept of reflexivity, reflective practice and what constitutes a good reflective process in teaching practice, 2) to develop a model for the analysis of reflective practice in written texts and 3) to examine the reflective practice of our CAS participants as exposed in their projects and portfolios with the overall aim to help them improve this process.

The study utilizes methods of qualitative research to get a rich and deep insight into the phenomenon under study from the perspectives of the involved participants (Creswell, 2014). The data base of our analysis consists of participants' research projects and portfolios as well as individual, semi-structured in-depth interviews with the participants.

The sample of participants includes a random selection of 8 teachers who have volunteered to be interviewed and a selection of 4 portfolios and 4 projects from different cohorts of three different CAS programmes.

The research project is still ongoing, and this specific contribution will address only the first and second objectives. It will explain the concepts of reflection and reflective practice, show a wide array of reflective models, suggest a model and its main dimensions, and propose a coding scheme to analyse reflexivity in the teaching practice.

Reflective practice

The origins of reflection as a concept are difficult to trace. There are elements of reflection running through the works of Aristotle, encapsulated within the concept of phronesis or practical



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

wisdom developed through the process of reflection (Kraut, 1989), the works of Kant (1781), and more recently and perhaps most importantly through the works of Dewey (1933). Dewey defined reflection as *“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 conclusion to which it tends”* (p. 9).

Reflection is thinking what you have done, are or will be doing, but not only: it involves close consideration of you as an individual, your moods, feelings and attitudes within the whole experience. According to Boud et al (1985), reflection is *“a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciation”* (p. 19).

The differentiation between reflection and reflective practice is purposeful. The two concepts share a number of elements, and are often used interchangeably, but they are different in that reflective practice places emphasis on the processing of experience in order to learn and gives more attention to process than outcome. Schön (1988) argued that, in order to solve complex problems, professionals needed to reflect, thus he was the first to use the term reflective practitioner. In that regard, a reflective practitioner is one who uses reflection as a tool for revisiting experience both to learn from it and for the framing of complex problems of professional practice.

A review of the literature on reflective practice revealed a range of approaches to this area and highlight the complex nature of the relationship between reflection and practice as well as that of reflection itself. Themes and responses in the literature include a focus on the problem-solving function of reflective practice (Pugach and Johnson, 1995), the moral and ethical responsibilities of the practitioner (LaBoskey, 1994), the development of models for the improvement of practice through reflection (Ghaye and Lillyman, 2000), and factors impacting on the reflective process.

Brookfield’s work on critical reflection (1987) embodies the notion that this process involves the ability to shift perspectives on one’s beliefs and practice. This occurs through a range of mental activities:

1. The analysis of practitioners’ assumptions, beliefs, values and practices
2. Thinking processes which develop the practitioners’ contextual awareness
3. Imaginative speculation whereby practitioners imagine alternative ways of thinking and acting in order to facilitate change
4. Reflective skepticism whereby practitioners question universal truth claims or unexamined patterns of interaction.

In our understanding, reflective practice in teacher training is a systematic and persistent attitude of awareness, analysis and assessment of the teachers’ teaching and learning assumptions,



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

beliefs, values and practices in order to develop (new) strategies that can positively influence their professional career. It is focused on situations, actions and often complex problems, and therefore is closely linked to application and transfer, even beyond the realms of the classroom space.

Models of reflection

Reflection is a complex construct where different features and dimensions intertwine with aspects of quality and intensity. Abou Baker El-Dib (2007) considers that is a human trait that exists in varying degrees in different people. "It is not a question of whether an individual is reflective or not but rather at what level of reflection a person is operating (p. 25, in Wyss, 2013:54). Processes and levels of reflection are often communicated through models of reflection.

Various descriptions of the levels and processes of reflection have been offered in the literature. The following will look at various models of reflection suggested by Ghaye and Lillyman (2000): iterative, synthetic, holistic, structured, and hierarchical (Table 1):

- Iterative models can be described as a cyclical process of reflection where deepening of awareness and an increase in knowledge and skills arise from a repeated cyclical movement through the reflective process.
- Synthetic models decompose reflection into two critical aspects: interests and forms. Interests refer to the goal of reflection which could result in the strengthening of a prior theory or practice, clearer understanding, solution of a problem or a critique of the professional practice. Forms are the characteristics of the act of reflection.
- Structured models describe reflection as a process of accessing, understanding and ultimately learning through experiences which is guided and supported by an expert guide. It is based on the acknowledgement that reflection is a difficult task to do without any help or expert guidance.
- Holistic models link personal and professional values with practice, intention with action, development of the individual and the team within the context of practice.
- Hierarchical models describe the process in terms of successive levels or categories where reflection is increasingly complex. The growing complexity means that the lower level is considered to be less complex than and a prerequisite for the subsequent levels. In these developmental models thinking is viewed as qualitatively different at different levels and reflecting increasing levels of maturity.



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

Almost all of these models contain descriptions which can be used to identify the focus or the stage of teachers' reflection.

Our Reflective Model

The differences in the various schemes demonstrate that there is still a lack of agreement on the best scheme to measure reflection. This lack of suitability for assessing reflection on written texts from academics in professional development programmes prompted the decision to develop a coding scheme based on a combination of features of several models:

1. The first feature is *levels of reflection*. Van Manen (1992) proposes three levels of reflection. The first level is the *technical reflection*: judgment on the efficiency of the means to achieve certain ends. The second level is *practical reflection*, which examines the objectives and their actual results. The third level is *critical reflection*, which involves making judgments about professional activity or personal action and placing it in socio-historical and political-cultural contexts.
2. The second feature is *dimensions in the pedagogical knowledge*. Altet (2008) points out that pedagogical knowledge can have several dimensions:
 - a. a *heuristic dimension*, since it suggests possibilities of theoretical reflection and makes the emergence of new concepts imaginable;
 - b. a *dimension of problematization*, because it allows to pose and determine problems;
 - c. an *instrumental dimension*, since it is a tool to describe the practices;
 - d. and a *dimension of change*, as an instrument for change, because from this knowledge solutions can be sketched to a problem or modify practices.
3. The third feature is the *components of reflection*. Drawing on the work of Mezirow (1991), Kreber and Cranton (2000) proposed that reflection focuses on three components: *content*, *process* and *premise*.
 - a. *Content* reflection helps teachers to describe their beliefs about *what they know and should be teaching*. It involves examining the actions teachers take, for example by exploring course design, intended learning outcomes and the instructional materials used to support student learning in the course. Teachers confront their assumptions about the course and what bodies of knowledge are appropriate.
 - b. By engaging in *process* reflection, they seek to validate *what they do*. The focus on the process component is the teaching and learning assumptions underpinning our practice. How do we engage students as active learners? To



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

obtain evidence of their practice, teachers collect data from students on how they engaged in the course, and the professional benefits and outcomes for them.

- c. Engaging in *premise* reflection requires teachers to examine *why they teach the way they do* by reconceptualising the issues, justifying the approaches taken or suggesting alternatives.
4. The fourth feature is reflection through writing. Fund, Court & Kramarski (2002) confirm the gradual increase in complexity of reflection in written texts. Jorba, Gómez & Prat (2000) also indicate the development of sophisticated cognitive-linguistic skills when writing argumentative texts. In this regard, they indicate different sorts of texts according to reflection:
- a. In *descriptive texts* there is no coordination between the different "content units". A descriptive text shows, through careful observation, how teaching is done, highlighting the features, qualities, distinctive aspects, in order to furnish a clear and complete concept.
 - b. In *personal texts* there is a distinction between the subject of the text and the "I as a teacher" (two different content units).
 - c. In the *linking texts* there is a link between the subject, the "I as a teacher" and the previous knowledge and experience (three units of different ideas). Linking texts are also explanatory because reasons are produced to make a fact or evidence comprehensible.
 - d. In the *critical texts*, there are four units of different ideas: the previous three and the professional literature. Critical texts are argumentative because the topic is discussed from different angles, including giving an opinion, and comparing and contrasting with other views.

In terms of reflection, the first levels are more superficial than the last one. In a way, this writing process can range from superficial engagement with ideas and experiences (first two levels) to deep engagement (last two levels).

These types of reflection provide a useful structure to describe the work of academics and highlights the multiplicity of reflections that are relevant in any situation at the individual level. These four features of reflection should neither be considered as exhaustive nor discrete. However, they provide us with the necessary guidance into how to analyse portfolios and projects and will be able to be used to help academics undertake systematic reflection about their teaching.



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

Our coding scheme

The selection of the meaning unit is given careful consideration since the use of an unsuitable unit to code text could seriously affect the results of the analysis (Creswell, 2014). A meaning unit, in an interview transcript, is a word, phrase, sentence or paragraph (Berg and Lune, 2012). However, for our portfolios and projects, the sentence or paragraph unit can still be too small to be able to fully demonstrate or discriminate among levels of reflections. For this reason, in our research, we are taking samples of text from several paragraphs or even complete subchapters as meaning units.

In this scheme, the four previous features and their specifications for each level of reflection were adapted as the indicators. The levels of the above scheme are structured in a hierarchy, with level 4 as the highest (Table 2). Each level of reflection contains a list of indicators describing them. Such description will be used to identify the units of meaning in the portfolios and projects.

Concluding remarks

In the development of the Reflective Model described in this paper, it is necessary to acknowledge the difficulty of defining reflection and of determining its effects. Because reflection is largely an intrapsychological process, it can only be captured indirectly. Moon points out (2000: 97) that an area of controversy in the literature on reflection is the time frame in which reflection and its results occur; as she also indicates, reflection does not always lead to change: even though we may reflect on our problems, we will not necessarily learn from them.

The issue of defining and measuring reflection raises questions as to how it may be assessed in academic development programmes. We have developed a reflection model for evaluating the extent to which participants are being reflective in their portfolios and projects, and we hope that the model provides the evidence of their engagement in reflection.



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

3.1. GRAPHIC OR TABLE 1

Table 1. Modes of reflexive processes (adapted from Ghaye & Lillyman, 2000)



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

Model	Example	Elements and processes	Usage	Identifying reflection
Iterative	Boud et al (1985)	A cyclical process through four stages	diagnostic	The stage of reflective process is identified through four through 4 stages in the iterative process
Iterative	Kolb (1984)	A cyclical process through four stages	diagnostic	Reflection is identified by four stages in the iterative process
Iterative	Gibbs (1988)	A cyclical process through five stages	diagnostic	Reflection is identified by six stages in the iterative process
Holistic	Ghaye and Lillyman (1997)	A five-by-five matrix table in which five components are cyclical processes	diagnostic	Reflection is identified by the (5) types of the reflection-on-practice and the focus of learning (5)
Structured	Johns (2002)	A list of one instruction and sixteen guiding questions	guide	The process of reflection is guided using instruction and questions
Synthetic	Louden (1997)	A four-by-four matrix table	Diagnostic	Reflection is identified by the interest and the forms
Hierarchical	Mezirow (1991)	Four progressive levels (two non reflective levels and two reflective levels)	Diagnostic	The progression in reflection is identified by matching the description of the 2 non-reflective levels and the 2 reflective levels. This model acknowledges differences in complexity in reflection.
Hierarchical	Biggs & Collis (1982)	Five progressive critical thinking levels (SOLO Taxonomy)	Diagnostic	The progression in reflection is identified by matching the description of the 2 non-reflective levels and the 3 reflective levels.
Hierarchical	Van Manen (1977, 1991)	Four progressive reflective levels	Diagnostic	The progression in reflection is identified by matching the description of the 4 reflective levels. This model acknowledges differences in complexity in reflection.
Hierarchical	Abou Baker El-Dib (2007)	Multiplicity of levels	Diagnostic	Multiplicity of levels and features of each level which embodies the development from habitual rigid thinking to deep, multiple and larger contextual visionary thinking
Hierarchical	Fund, Court and Kramarski (2002)	Analysis of reflexivity in written texts	Diagnostic	Gradual increase in complexity of reflection in written texts and the development of sophisticated cognitive-linguistic skills



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

3.2. GRAPHIC OR TABLE 2

Table 2. The coding scheme (adapted from Van Manen, 1991; Kreber & Cranton, 2000; Altet, 2008; Fund, Court & Kramarski, 2002)



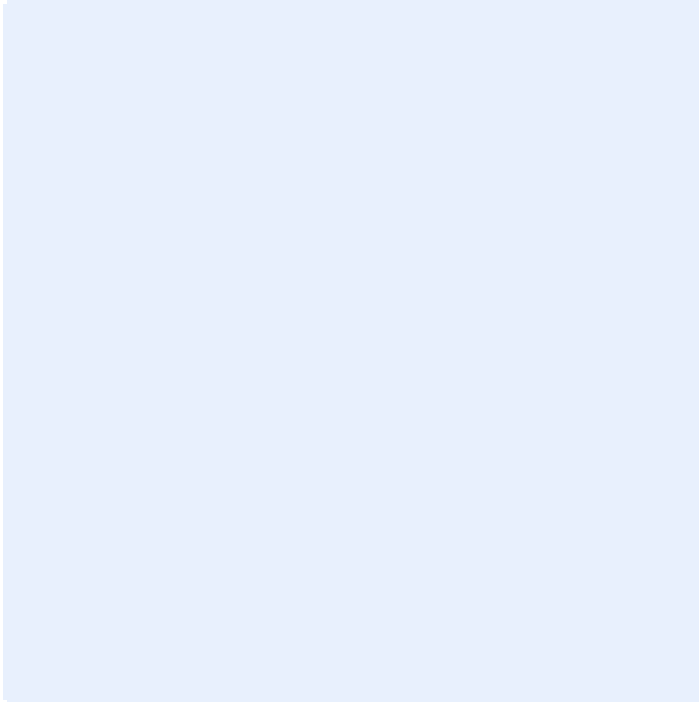
LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

Level	Description	Indicators
1	Everyday thinking and acting	<ul style="list-style-type: none"> - Use common sense thinking and acting in ordinary life. - Partly habituated, partly routinized, partly composed of intuitive, pre - reflective rationality - Concerned with efficient and effective application of pedagogical knowledge - Only answering the question or stating the obvious without giving and further explanation or reason - Describes the “what” issues and contents learned in the lesson; Describes “how” the lesson was taught, describes him/herself in the lesson
2	Reflection on incidental and limited way on practical experiences in everyday life	<ul style="list-style-type: none"> - Recount incidents - Tell stories - Starts to try to formulate rules-of-thumb - Starts to link the statements to practical principles, do's and don'ts - Limited insights - Gives evident explanation/reason on the statement/experience - Personal concern of the “what” and/or on the “how”, including links to previous experience, and “what I’ve learnt from the ‘what’” or the “how”. The concern relies on feelings and intuitions, not on scientific basis - Personal insight about himself or herself as a student, teachers, etc
3	More systematic reflection on own experience and that of others	<ul style="list-style-type: none"> - Using existing theories to make further sense of the phenomena - Aimed to develop theoretical understandings and critical insights about everyday action - Using others' experiences - More structured reflection based on existing theories - Connects with the “what” to theories or previous knowledge; makes associative links - Suggests possible reasons for the “how” using previously learned concepts without explicit linking to literature or makes associative links to literature but does not further develop it - Explicit awareness to the linking and connecting process he/she employs
4	Reflect on the way we reflect, on the form of our theorizing	<ul style="list-style-type: none"> - Reflection on experiences - Reflection on the conditions (nature and significance) that shape the experiences - Aimed to come to a more self-reflective grasp of the nature of the knowledge, how knowledge functions in action, and how it can be applied to our active understanding of the practical action - Critical analysis of the “what” and/or the “how”, with other opinions; gives evidence from the literature; generalises; reaches general conclusions about the “what” and/or the “how”: suggesting alternatives with explanations and reasons. Poses considerations, makes judgements.

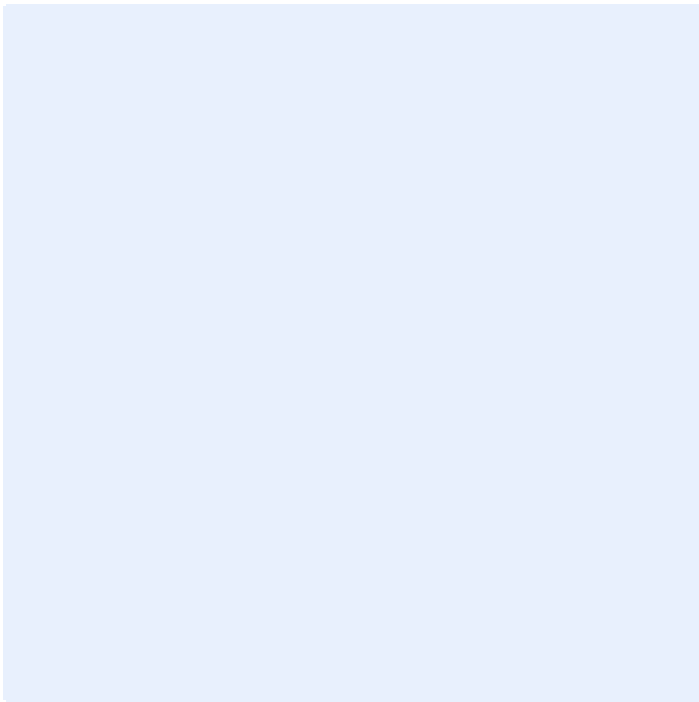


LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

3.3. GRAPHIC OR TABLE 3



3.4. GRAPHIC OR TABLE 4

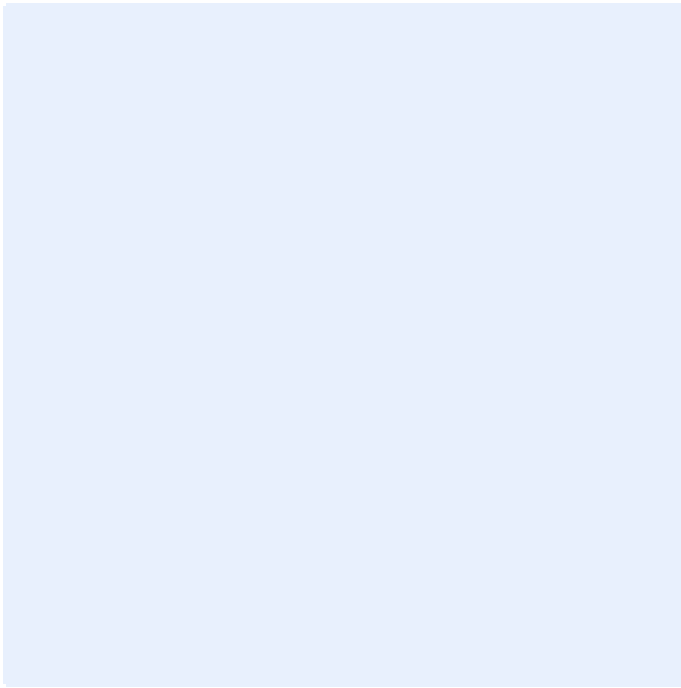


3.5. GRAPHIC OR TABLE 5

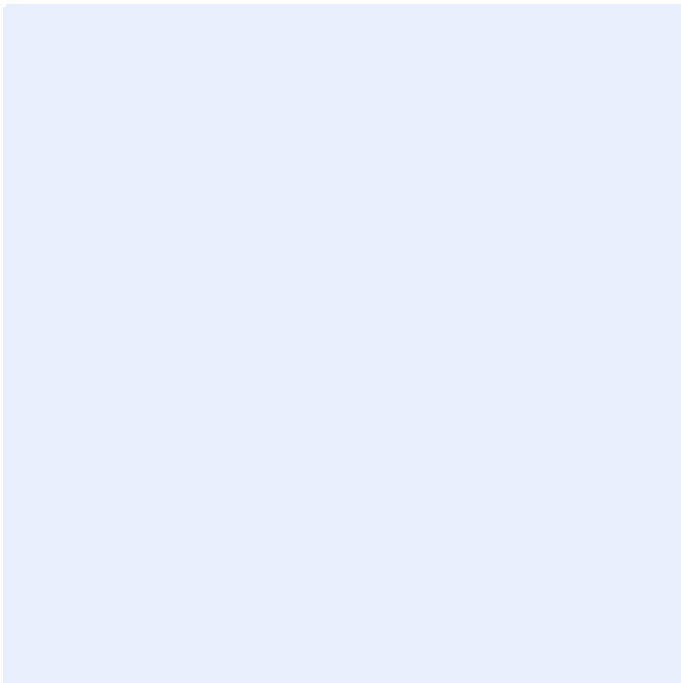
Revista CIDUI 2018
www.cidui.org/revistacidui
ISSN: 2385-6203



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY



3.6. GRAPHIC OR TABLE 6



4. REFERENCES (according APA regulations)



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

References:

- Abou Baker El-Dib, M. (2007). Levels of reflection in action research. An overview and an assessment tool. *Teaching and Teacher Education*, 23(1):24-35.
- Altet, M. (2008). La competencia del maestro profesional o la importancia de saber analizar las prácticas. En Paquay, L. et al. (Coords.). *La formación profesional del maestro. Estrategias y competencias* (pp. 33-54). México, DF: Fondo de Cultura Económica.
- Bachmann, H. (2015). *Hochschuldidaktik mit Wirkung: Evidenzbasierte Hochschuldidaktik - eine Evaluationsstudie*. Bielefeld: UVW.
- Beauchamp, C. (2015). Reflection in teacher education: issues emerging from a review of current literature. *Reflective Practice*, 16(1), 123-141. doi:10.1080/14623943.2014.982525.
- Berg, B. & Lune, H. (2012). *Qualitative research methods for the social sciences*. (8th ed.). Pearson Education, Inc.: New Jersey.
- Brockbank, A. & MacGill, I. (2008). *El aprendizaje reflexivo en la educación superior*. Madrid: Morata.
- Brookfield, S. (1987). *Developing critical thinkers*. Milton Keynes: Open University Press.
- Boud, D., Keogh, R. and Walker, D. (1985). *Reflection: Turning experience into learning*. London: Kogan Page.
- Carr, W. & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research*. Philadelphia: Falmer Press.
- Creswell, J. W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA Sage.
- Collin, S., Karsenti, T., & Komis, V. (2013). Reflective practice in initial teacher training: critiques and perspectives. *Reflective Practice: International and Multidisciplinary Perspectives*, 14(1), 104-117.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educational process*. Lexington, MA: Heath.
- Ghaye, T. & Lillyman, S. (Eds.) (2000). *Caring moments: The discourse of reflective practice*. Mark Allen Publishing: Wiltshire
- Hatton, N. and Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11, 33-49.
- Fund, Z. Court, D., & Kramarski, B. (2002). Construction and application of an evaluative tool to assess reflection in teacher-training courses. *Assessment and Evaluation in Higher Education*, 27(6), 485-499.
- Hays, R. & Gay, S. (2011). Reflection or 'pre-reflection': what are we actually measuring in reflective practice? *Medical Education*, 45, 116-118.
- Jorba, J., Gómez, I., & Prat, A. (2000). *Hablar y escribir para aprender*. Madrid: Síntesis.
- Kant, I. (1781). *The Critique of Pure Reason*. Virginia, USA: IndyPublish.com.



LEARNING SPACES: CHANGE AGENTS AT THE UNIVERSITY

- Kraut, R. (1989). *Aristotle on the Human Good*. Princeton, NJ: Princeton University Press.
- Kreber, C. & Cranton, P.A. (1997). Teaching as scholarship: a model for instructional development. *Issues and Inquiry in College Learning and Teaching*, 19(2), 4-13.
- Kolb, D. (1984). *Experiential Learning. Experience as the source of learning and development*. New Jersey: Prentice Hal.
- LaBoskey, V. K. (1994). *Development of reflective practice: a study of preservice teachers*. New York: Teachers College Press.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- Moon, J.A. (2000). *A Handbook of reflective and experiential learning. Theory and Practice*. London: Routledge Falmer Press.
- Perreneud, P. (2010). *Desarrollar la práctica reflexiva en el oficio de enseñar*. Barcelona: Graó.
- Pugach, M.C., & Johnson, L.J. (1995). *Collaborative practitioners, collaborative school* (p.178). Denver, Colorado, USA: Love Company Publishing.
- Schön, D. (1998). *El profesional reflexivo. Cómo piensan los profesionales cuando actúan*. Barcelona: Paidós.
- Van Manen, M. (1992). Reflectivity and the pedagogical moment: the normativity of pedagogical thinking and acting. *The Journal of Curriculum Studies*. 23(6), 507-536.
- Wyss, C. (2013). *Unterricht und Reflexion. Eine mehrperspektivische Untersuchung der Unterrichts- und Reflexionskompetenz von Lehrkräften*. Empirische Erziehungswissenschaft, Band 44. Münster: Waxmann.