



Portfolio reflective collective: a tool for planning and organization of teamwork

A tool for planning and organization of teamwork

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1. **ABSTRACT:** The present study assessed the experience of using planning tools when constructing a collective portfolio. Was used the following techniques: participant observation; interviews with 114 graduate students in health courses and six focus groups. The data were categorized, by content analysis, into three dimensions: the operational, the learning and the teamwork. It was found the importance of these planning tools in training and driving strategies to attain the proposed learning goals.
2. **ABSTRACT:** The present study assessed the experience of using planning tools when constructing a collective portfolio. Was used the following techniques: participant observation; interviews with 114 graduate students in health courses and six focus groups. The data were categorized, by content analysis, into three dimensions: the operational, the learning and the teamwork. It was found the importance of these planning tools in training and driving strategies to attain the proposed learning goals.



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3. KEYWORDS: portafolio, trabajo en equipo, planificación, el aprendizaje significativo

KEYWORDS: portfolio, teamwork, planning, meaningful learning

4. DEVELOPMENT:

INTRODUCTION

Portfolios are considered to be an effective and efficient method of teaching, learning and assessment. This has been validated and certified in numerous studies worldwide. 1, 2, 3, 4 Its diverse typologies are designed based on the requirements and reality of each student context and include the group reflective portfolio. This portfolio was created based on the demands of the current job scenario, which demands the training of professionals with a critical-reflective profile and the capacity to work as part of a team.³

However, teamwork presents a number of challenges, particularly in relation to conflict management in decision making, resource management, the effective participation of each member of the team, as well as leadership and commitment in the performance of the proposed activities while constructing the portfolio.

Blanco (2009)⁵ pointed out that conflict is inherent to the human condition. Conflicts can appear in any situation in life as a consequence of the relationship between two or more people and are caused by discrepancies in points of view or different visions of the same situation. When working as part of a team, it is important to transform conflicts into positive experiences which lead to individual and collective growth.

The group portfolio is an active method of teaching, learning and assessment and aims to promote teamwork and the development of partnerships, as well as interaction between students both inside and outside of the classroom. However, the capacity to plan activities that require teamwork is a major obstacle. In order to produce a successful portfolio, it is necessary to sequence the different activities, in order to minimize risks and inconveniences, and to establish priorities and define the roles of each member of the team throughout the course of these activities. ⁵

Two tools were created to assist students to attain the proposed learning goals, manage conflicts and promote consensus while working as part of a team: the Planning of Learning in the Portfolio Construction Process (PAPP); and the Teamwork Report (RTE). Thus, the aim of the present study was to assess student's experiences of creating and using planning and learning tools to construct collective reflective portfolios.



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MATERIALS AND METHODS

Study design and subjects

This was a descriptive explanatory study using qualitative analysis, interviews, participant observation and focus groups. In total, 114 graduate students who had attended the Health Policy course over four semesters in 2012 and 2013 participated in the present study. . The focus groups were conducted at the end of the semester. The groups were organized with 12 students who met the practical lessons of discipline, where the debates took place on the mediation of the researcher. A guide script used by the researcher fostered discussion.

The interviews were conducted individually using a script with open questions: Were the tools used? How? How did the tools benefit the group? Did the planning tools help in the learning process? What difficulties were encountered while using the tools? How were the encountered? All of the interviews were recorded for later transcription. Three focus groups were carried out at the end of each semester, with a total of nine groups. A script with the following questions was used: Did the planning tools help in the creation of the portfolio? If so, how did they help? If not, why not? What aspects facilitated or hindered the process while using the tools? If necessary, what changes should be made to the tools?

The participants were observed during classroom activities and meetings that were held to discuss and construct the portfolio. The groups used the planning tools (PAPP and RTE) during these meetings to construct the portfolio. They also used supplementary notes in this process.

Data analysis

The data were analyzed through content analysis. 6, 7 After a global interpretation of the answers, the material was organized according to the units of context and general categories were elaborated to obtain a comprehensive overview of the material analyzed. The categories were grouped after more synthetic readings and the remarks and bibliographical references were added to the discussion and conclusions of the study.

Conception of the object of the study: the group portfolio

The group portfolio construction process is used as a didactical method of teaching, learning and assessment in the discipline of Health Policy. The aim is to use this active method in large classes of graduation courses in the area of health in a Brazilian university.

The portfolios are constructed collectively by groups composed of approximately six students. At the beginning of each semester, the learning objectives associated with the construction of a group portfolio are presented to the students and reconstructed jointly by the faculty and students.



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Guidelines from the literature 3, 8, 9 ensure the creation of a clear structure with well-defined criteria and agendas. Students are aware of all of the phases in the creation of a portfolio: in the planning stage, (before the activity) the students consider, choose and express their goals, competencies (knowledge, skills and attitudes), content and learning strategies; in the monitoring stage, documents and texts are carefully analyzed, schedules are met (time management) and difficulties are overcome; the assessment phase is continuous and longitudinal, performed monthly with four assessments in each semester.

The construction of a group portfolio should be separated into four parts: 1) Individual construction at first followed by collective construction after the concept of the portfolio has been confirmed - students should perform a literature review of the concepts, definitions, purposes and dimensions/characteristics that a reflective portfolio should involve (extracurricular activity) and use this information to create a concept for the portfolio themselves, before discussing the concept with the group; 2) My trajectory - each student describes their personal details ("who I am, where I am from and where I am going") and the members of the group collectively write about their perceptions of their colleagues ("who am I in the eyes of others"). These comments are written down at the start of the semester and again at the end; 3) Learning with the group involves activities performed in groups related to the themes of the discipline (experiences of different practical situations, reviews, summaries, practical reports, problems and any other group activities encountered in the discipline); 4) Creative space - the place where the group expresses their creativity freely using cartoons, poems, songs, drawings from written or electronic media, drawings created within the group and critical reflection.

Planning Tools of the Process of Constructing a Collective Reflective Portfolio

The aim of cooperative learning is to find group strategies that develop inter-personal communication and solve problems and conflicts collectively in such a way as to favor teamwork and the development of competence, initiative and responsibility. This search led to the construction of two tools: PAPP and RTE.

The dimensions of PAPP and RTE, their respective objectives and examples of activities are displayed in Figure 1.

Figure 1 - Dimensions, characteristics and objectives of planning tools for the construction of a group reflective portfolio

RESULTS

The results of the present study identified three dimensions associated with the student's use of the planning tools (PPA and RTE): utility; the learning process and teamwork (Table 1).

Table 1 - dimensions associated with the student's use of the planning and learning tools (PPA and RTE) to create a group reflective portfolio



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In the operational dimension, the students identified hindering and facilitating aspects related to the proposed tools (Figure 2). The students reported the need to understand the function of the tools in order to use them more adequately, thereby streamlining and optimizing the construction process of the portfolio as a team.

Figure 2 - Hindering and facilitating aspects of the planning tools (PPA and RTE) while building the portfolio

The student's difficulties in using the tools are notable at two different stages. In the beginning of the semester, when they were first shown the tools, students reported difficulties in what to write, how to fill in the items, how to record the stated objectives and how to specify the functions and activities identified. Later on, they reported difficulties associated with the use of the tools, which shows the inherent difficulty of this process. The facilitating aspects in the operational dimension revealed how the tools helped group organization and time management during the preparation of activities.

With regards to the learning dimension, the students reported that the tools helped them to understand the work process involved in the portfolio and particularly helped them to achieve the goals created jointly between students and professors. Significantly, the students also reported that the tools assisted in the self-assessment process of the group, by encouraging reflection about the activities and the type of learning provided by the portfolio.

With regards to the teamwork dimension, students highlighted that the tools favored agreement and consensus, thereby minimizing conflicts, particularly in relation to financial aspects and the division of tasks and activities (Figure 2). Based on the student reports and assessments, PPA and RTE were restructured and adapted as required to become more objective and easier to use, thus fulfilling the principal planning and organization purposes of the study.

Areas of use and comprehension of the tools

Figure 3 displays four sub-spaces that represent the main discursive features of the students and the results of using PPA and RTE. The axes represent the trajectory of understanding related to these tools (What is it?) and their practical uses (How is it done?). As the students gained a greater understanding of the tools and how to use them, sub-spaces are created depicting the progress, or lack of progress, of the students in terms of their practical use of PPA and RTE.

Axis x displays the trajectory experienced by the groups in relation to understanding the tools (What is it? What is the objective? Why?). As the group understanding improves, the students acquire practical experience and the planning and organizational benefits increase. Axis y represents the understanding brought about by trying and using PPA and RTE (What? When? How?). As the group progresses along this axis, the benefits of using these tools to plan the portfolio increase.



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The quadrants represent four sub-spaces: Quadrant 1) groups who used the tools and saw the benefits associated with their use; Quadrant 2) groups who used the tools but did not see clearly the benefits associated with their use; Quadrant 3) those who did not use the tools correctly or realize their importance and benefits; Quadrant 4) those that realized the importance of the tools but did not use them correctly. Therefore, the trajectory of understanding related to PPA and RTE (what is it and how is it done) directly affected the final benefits of the tools in terms of the organization, intimacy and/or agreement of the groups. It is important to note that other factors, unrelated to understanding, affected the use of the tools: time and motivation. Most of the groups were distributed in quadrants 1 and 2.

Figure 3 - Representation of the axes of understanding for the techniques, as well as the quadrants of use and benefits of PPA and RTE, according to graduate students in the area of health

DISCUSSION

The findings of the present study showed an interesting trajectory of experience for the students in the process of learning and using PPA and RTE while creating the portfolio (Figure 4).

Figure 4 - Trajectory experienced by the graduate students in the area of health in the comprehension and utilization of the planning tools to create the portfolio

This trajectory is marked by the process of understanding what the instruments are (What is the objective? Why? For what reason?) and how to use them (What, how and when?). This involves an understanding of the practical function of these tools and is an element of efficiency in the construction of the portfolio.

According to Salomon (2006), 11 humans are structured to think and act. The process of knowing how to act starts with problematization (Why?). It has been shown that our thought process almost always reacts to interrogatives through reflection. "Even if only on a mental level, humans resort to interrogatives in the processes of knowing and acting once they become aware of a problem and formulate it" (p.7). The present study includes these interrogatives: What is the objective? Why? For what reason?

The need to understand the process, which can develop throughout the entire development of the portfolio, is a primordial condition for the success of the tools in the construction of a group portfolio. Previous studies have emphasized that a satisfactory introduction to the portfolio requires clear information and support for students. Information and support are potentially capable of improving the students understanding of what the portfolio is for while also decreasing their anxiety and motivating them to



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carry out the activities inherent to the profile. Therefore, the correct use of the tools (PPA and RTE) promotes efficiency in the use of the collective portfolio.^{12, 13, 14, 15, 16}

One of the aspects most frequently cited by students, particularly in the utility dimension, refers to organization and planning. Blanco (2009)⁵ defined planning as the process of establishing objectives and choosing the most efficient means of achieving them. In order to plan, one should search and assess all relevant information available, including probable future developments, in order to then use the necessary resources to create a plan of action that will lead to the desired results. One example of a serious error in the organization of a portfolio would be an immediate and excessive search for work without going through the various stages of preparation, organization and planning that are essential to the quality and success of the work.

A significant result of the present study was the fact that using the planning tools allowed the students to assess themselves. This self-assessment is essential in the reflection process associated with the learning that the portfolio should enable. It is important to highlight the experience reported by one of the groups during one of the monthly assessments: the students stated that at a specific time, when they were gathered together to create the portfolio and fill in the planning tools, they experienced a realization and started to question why their learning was not reflective. Consequently, they drafted a strategy of change, which involved more meetings and discussions about the process and they vocalized alternatives and activities which brought a critical and reflective meaning to the portfolio. This change of attitude was clearly evident in the portfolio from the third assessment onwards (4 assessments are conducted per semester).

It is clear that using PPA and RTE as planning tools in the construction process of the portfolio favored the stimulation of reflective thought. The students became aware of their thoughts and actions and sought logical, rational and creative solutions to the problems identified. This also involves intuition, emotion, self-reflection and interaction. These findings are consistent with studies developed by Exley and Dennick (2009, p. 12)¹⁷: “by reviewing and reflecting on their actions, students can learn from their successes and failures and consequently, develop their skills and understanding, as well as planning their future learning”.

Obstacles related to the teamwork dynamic include the equal division of tasks and activities. This equal division avoids overworking certain group members of the team relative to others. These conflicts are inherent to group work and hinder the acquisition of skills, attitudes and knowledge for the individual and the group as a whole.

One method of confronting these obstacles is to minimize the undesirable effects of the conflicts inherent to teamwork by using planning and organizational tools for the activities. These tools enable better conflict management and reconcile disagreements based on rules that were drawn up by the group. Groups that use planning tools are able to draft and agree on a number of rules that help the daily functioning of the team and avoid the



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fragmentation of activities or the overworking of some group members, which are common flaws in traditional practices. These advantages afford the student a more profound understanding of the process (Kolb, 1984 cited by Exley and Dennick; 2009).¹⁷

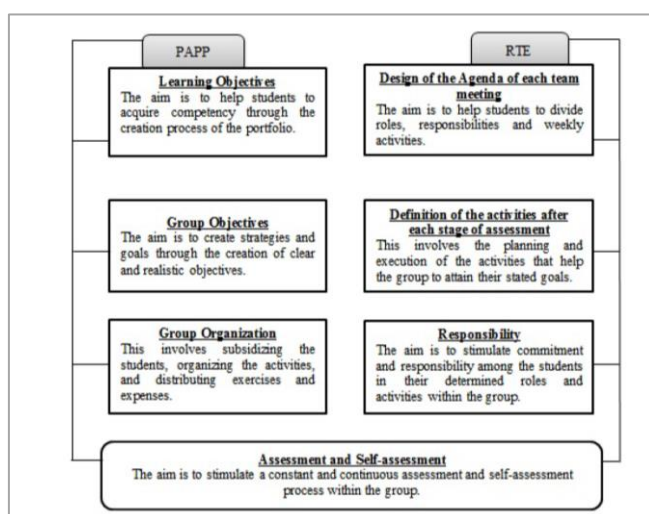
CONCLUSION

The dimensions found in the reports of students that used the planning tools PPA and RTE (utility, learning process and teamwork) portray the need for students to understand how and why to use these tools in order to then visualize their utility in the construction process of a portfolio. In other words, the value and meaning derived from using these tools will help students to realize the practical benefits associated with their use while planning and organizing a group portfolio.

For a group reflective portfolio to be efficient, it requires organization levels that make the group function well. All members of the group must contribute equally with their skills, knowledge and attitudes, thereby providing mechanisms which will lead to significant learning and formative assessment.

Interdisciplinary work in the labor market demands professionals who are trained to deal with conflicts, to make agreements and to organize themselves so that they can take a holistic approach to the principal health problems that affect the population. The planning tools used in the present study were shown to be a part of the learning objectives of the portfolio, in terms of acquiring the specific skills required to work as part of a team.

4.1. GRAPHIC OR TABLE 1





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4.2. GRAPHIC OR TABLE 2

DIMENSIONS	ELEMENTS IDENTIFIED
OPERATIONAL	Associated with the use of the tools (define the objectives and goals, outline strategies for change)
	Facilitate the process (planning, organization and attaining the proposed goals)
	Hinder the process (toilsome, difficulty in understanding the items)
LEARNING PROCESS	Clear understanding of the learning goals and objectives of the portfolio
	Practical reflection (self-reflection for the group)
TEAMWORK	Agreement and consensus –conflict management
	Equal distribution of tasks and activities

4.3. GRAPHIC OR TABLE 3

UTILITY
"At first, I didn't understand the tools or what they were for. I didn't know what to write or how to fill it in or how it would help in the creation of the portfolio. Later, I saw that it helped us to organize our time. We are from different courses" E12 "After I understood the reason for the tools I realized that they could help us to organize our activities better and to attain the goals of the group" E49 "At first, we had many difficulties with the tools. We didn't know the reason for completing them and it was just one more thing to do...after we began to understand that they would help, particularly in the organization of the activities and the meeting times..."E24
LEARNING
"Using the tools gave the group the opportunity to understand what the portfolio would be like. We put down on paper where we would finish up, which is something that we generally don't do in university" E44 "At first, I found it toilsome and annoying but afterwards I liked it because it helped me to understand how to make connections and reflections, which the professor mentions frequently" E13 "The tools helped us in the assessment. We saw where the professor wanted us to make changes and we linked this to the assessment" E54 "Now that we have finished the portfolio, I see how much the tools helped us. I didn't think like that before. I can see now that they helped the group get a good result in the portfolio. We did it!" E16 "The tools helped the group to realize that we were not learning with the portfolio. Just
TEAMWORK
"A good thing about these tools was that we did not need to tell each other things. It was there, we had to write it down, it wasn't a person who led the group, it was part of the portfolio and the work" E5 "I liked the fact that everybody had to sign it and assume responsibility. Everybody had to work equally" E11 "When working in groups, there is always more work for some people. I think the tools helped to reduce this problem" E21 "The portfolio has a cost. With the planning tools, we were able to organize our finances better. Nobody was left to solve the problem alone - everybody had to pay the bills" E70

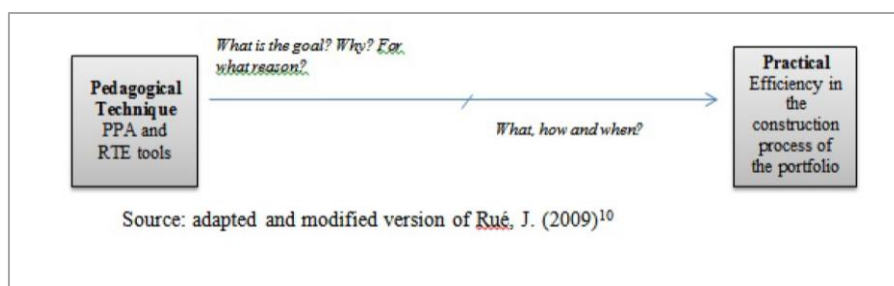


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4.4. GRAPHIC OR TABLE 4

		AXIS X: Understanding: what is it? What is the objective? Why?	
		-	+
AXIS Y: Understanding of HOW: WHAT, WHEN and HOW?	+	Quadrant 2 The students used the tools but did not see the benefits associated with their use	Quadrant 1 The students used the tools and saw the benefits associated with their use
	-	Quadrant 3 The students did not use the tools adequately or understand their importance or benefits	Quadrant 4 The students realized the importance of the tools but did not use them adequately

4.5. GRAPHIC OR TABLE 5



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