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Portfolios within the preschool environment

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Abstract
The academic community has been discussing the options for using portfolios within the education process for a number of years. Studies looking at this phenomenon often focus on a constructivist concept of portfolios where the child is the main agent in creating the document (Sitz & Bartholomew, 2008; Smith et al., 2003). The alternative to this is the positivist concept of the portfolio. The submitted research study is focused on the use of portfolios specifically within the preschool environment. The research's main objective was to understand how children's portfolios are used within the education process in preschools and present the children's perspective on their own portfolios. Adopting a qualitatively-focused research design, the research methods used were content analysis of portfolios, and interviews with children on their document. The research findings show that within the preschool environment, portfolios are used in a number of ways. These ways are directly linked to the teacher's belief on the importance of portfolios for preschool-age children. A child's portfolio can be a concept, a tool, a method or also a means. The results also present the children's original perspective on their own portfolios. This study is based on a part of my completed rigorosum thesis (Trávníčková, 2019).
Key words: child's portfolio, positivist and constructivist concept of child's portfolio

Introduction
At the current time, a constructivist concept of teaching and child learning is an increasingly common international topic. In this regard, one can note an endeavour by experts to ensure children are active within teaching processes. A number of education strategies are offered in order to meet this objective, such as Enquiry based learning, STEM education, etc. These strategies accept children's *agency* and mediate children's experiences which are significant to them mainly in terms of their own learning. Portfolios have also become an important tool in this context.

Children's portfolios are a tool used within the school environment. The way they are used, however, differs according to the teacher's beliefs about their importance.. Seitz, Bartholomew (2008) describe how the function of portfolios is

not just to record children's development, but also to depict their talents and interests through electronic, oral and printed forms. In regard to portfolios, we can encounter, e.g. in Košťálová, Miková and Stang (2008, pp. 112-113), their division by various criteria. They are divided according to the purpose for which items are collected, according to who decided what type of item should be included in portfolios, and also according to who chooses specific examples of materials for the portfolio, and last but not least according to who evaluates the portfolio content and according to the level of arrangement and selection.

By defining these noted criteria, one can identify two paradigms whose objectives are entirely different. These are constructivist and positivist concepts of portfolios, as discussed, e.g. by Václavík (2013), Conrad (2006), Barrette & Corney (2005), and Paulson & Paulson (1994). It is clear that these two concepts notionally oppose each other. According to the presented criteria, a positivist portfolio is one where it is the teacher who decides on the portfolio content and who is also its assessor (Fig. 1). A constructivist portfolio would give more space to the child, who would decide on its content, choose items (where an item refers to one artefact within the portfolio – e.g. one sheet of paper) and would assess the contents of the document. While a positivist approach prioritises the selection of items which reflect external standards and interests, a constructivist approach focuses its attention on learning from the perspective of the learning individual, so giving more priority to processes. Thus for children it develops processes such as planning, implementation, control and evaluating one's own activities (Fig. 2). Putting it simply, one could say that the fundamental difference is in the concept of the portfolio as objective and portfolio as method (Václavík, 2013; Conrad, 2006). In further parts of the study, the objective is to provide readers with more information on these two approaches. Figures 1 and 2 portray the creation of a positivist and constructivist portfolio.

Kratochvílová (2014, p. 4) states that the "portfolio is the property of the child". This statement should imply that it is up to the child what the portfolio looks like and what its contents are. For a preschool-age child, it is naturally very difficult to work with the portfolio. Planning, ordering and deciding are processes which on the one hand move the child forward, and on the other hand force them to expend a certain effort. In regard to the value of the portfolio for the child, Gavora (2013, p. 46) states that, "... the portfolio is of great importance for the child. It is a powerful motivating actor. As the author of the work in his or her portfolio, the child can follow his or her progress and enjoy it. Children can mutually assess and compare their products with fellow pupils. Therefore the portfolio is an important factor in the child's self-assessment, leading the child to independence and developing his or her self-conception."

What do portfolios give children?

A portfolio can work as a tool for self-management and creating shared responsibility for one's own learning. It can help children to understand their development better and motivate them to improve further. Seitz, Bartolomew (2008) say that a portfolio is one of the tools of "celebrating" the child. In other words, the content of the portfolio also include his or her personal interests, photographs of events in the preschool or his or her own photographs. Sharing it with others (parents, teachers, children) further deepens the child's relationship to his or her portfolio.

A carefully managed portfolio supports children in self-assessment, which is a component of developing their self-esteem. This is formed during the pre-school years, and is a reflection of how the child evaluates him or herself. The child's engagement in creating their portfolio is very significant here. The teacher, as an assistant in its initial creation, provides the child with a guide on how to create it, with the rest of the work up to the child. Thus the child's own choices are implemented here (Marion, 2003). The child then perceives this set of documents as his or her own "book", to which the child has an emotional relationship.

What do portfolios bring the teacher?

Systematic work with the portfolio gives the teacher a deeper knowledge of the child, allows them to monitor the child's development, and it is also a good tool for discussions between the teacher and parents about the child. This naturally also influences co-operation between the family and preschool (Marion, 2003). Sedláčková, Syslová, Štěpánková (2012) state that the main function of the portfolio is to get to know the child, his or her strengths and weaknesses, and use ascertained skills to secure an appropriate plan for their further development. In their concept, its function then is above all informational and diagnostic, in contrast to Marion (2003), who notes, amongst other matters, its importance for improving the teacher's professional competences. In other words, it gives the teacher feedback on the content of education at two levels. At one level, the teacher can assess whether the child has understood the educational content on the basis of the documents included in the portfolio, and also whether it has aroused the child's interest in the particular topic. At another level, the teacher can in contrast work in regard to the child's interests, incorporating it into the educational content.

Methodology

The primary objective of this study is to understand how children describe their portfolio and how children's portfolios are used within the education process. In sub-objectives, attention is also focused on the process of portfolio creation, where there is a difference between a positivist and constructivist concept within preschool conditions.

Research methods

The method chosen in this study was content analysis of children's portfolios. These documents, however, contain mainly visual communication forms. Photographic records of these portfolio were created, which were then used for the actual analysis. A criterion which needs to be met in this method is to determine the analysis units. Here, a unit will be an item in the portfolio – a product. There are very few items in written form compared to those in visual form, however. In a content analysis of pupils' portfolios at elementary schools, Gavora (2015) indicates implementation of verbal (i.e. text) and visual (i.e. pictures, photographs, etc.) forms. Another method chosen is interviews with the children. These interviews were undertaken while looking at their own portfolios. The questions posited to the children were focused on the content of the children's portfolios and who put the particular documents in the portfolio. The children were also asked why they think the portfolios were made, and what they think will happen to them once they go to school.

Research sample

The selection of portfolios was undertaken with intention, such that it was a deliberate selection, typical for exploratory research (Gavora, 2015). A total of 10 children's portfolios capturing three years of a child's life were analysed. They were portfolios from the Zlín and South Moravian Regions. Interviews took place with ten children aged 5-6 years of age from the Zlín and South Moravian Regions. Informed parental consent had to be secured for the children's participation in the research.

Data analysis

Data analysis was undertaken on the basis of photo records of the selected portfolios. An analysis of a total of ten portfolios capturing the life of children for a three-year period were undertaken. A system of codes was created through determining analysis units after systematically looking through the portfolios a number of times. These codes were subsequently sorted into different categories. The process of coding ended after saturation of all categories. The Dictaphone recording of the interview was first put into written form, resulting in a transcript. This was systematically reviewed, and this was followed by open coding. In this process, the text was divided into units with codes assigned to these units. Sorting these codes subsequently led to the creation of categories.

Research findings

The content analysis research findings also complement the research findings from the implemented interview.

Content analysis of the children's portfolio revealed a number of types of items which comprised the content of the portfolios analysed. These were worksheets,

graphomotor sheets, documents for identifying the child, documents focused on the child and their family, the children's artwork and drawings. Some items also included descriptions from the teacher.

A total of 5 categories arose from the undertaken interviews: "Because I want to", "The teacher said", "Tasks and pictures", "Portfolio as a memento" and "That was a scribble – I can draw now."

The research findings from the content analysis and interviews with the children show that both the child and teacher can be involved in the process of portfolio creation. The extent of this may vary on a case-by-case basis. Content analysis revealed what types of items are found in the portfolio.

Each of the investigated portfolios gives basic details on the child, such as his or her photograph or other marks. This initial page works as a kind of *child identifier*. In the interview, the child often spoke about this photograph, or other mark. Statements were made here such as *"I was little then"*, etc. The child is actively involved in creating the initial page, although it is all done under the supervision of the preschool teacher, who provides instructions on how to create it.

It appears that the most numerous items in the children's portfolios are *worksheets and graphomotor sheets*. The children perceive these products as *tasks* and they are encouraged by the teacher to include them in their portfolios. The children discuss these artefacts only on the basis of a description. We think that the teacher utilises these sheets for diagnostics of the child, in which, however, they are interested more in the results of the work rather than the actual process of portfolio creation. We can also come to this conviction through the *teacher descriptions*, which are part of these sheets. These descriptions are mainly of informative and diagnostic importance and are found on almost all products. They are often evaluative, or also descriptive, in nature. In this way, the teacher comments on completion of the task and its quality. The child can also add comments.

Another important type of product within the portfolios comprises *free drawings from the child*. These drawings are seen very frequently. Alongside these items are pieces of artwork from the child requested by the teacher. These types of work, however, are only occasionally found in the portfolios. In particular, these involve work using art techniques which are common in preschools. These pieces are made on the instructions of the teacher, who according to the interviews undertaken also decides that they should be included in the portfolios. Children call the free drawings "pictures". The pictures which the child includes in their portfolio are usually of great value to them, and they often reflect the child's interests and experiences. The children speak extensively about these drawings, and they are motivated to share this part of their portfolio. Compared to the worksheets and graphomotor sheets, they speak much more about their meaning

and content. The child includes these drawings only if they want to. This fact is also testified to in the research findings found on the basis of the interviews. These suggest that items are included in the portfolio either on the basis of the child's decision, these mainly comprising free drawings from the child, or else on the instructions of the teacher, these mainly being pieces of artwork. It is in this area that we most commonly saw children evaluating their previous skills in hindsight. Representative statements made include, for example: *I used to do scribbles – but now I can draw*. Thus, they commented on their drawing, for example, or sometimes also a task they did poorly in but now would do better in.

Another item is *documents focused on the child and the child's family*. These are documents in which the child comments on him or herself, and the skills and interests they and their loved ones have. These documents are produced in co-operation with the teacher, who records the child's statements in a list. The motive for creating this product, however, mainly comes from the teacher. The children also commonly perceive this type of document as a task. This is probably because the work is undertaken on the teacher's instructions. Mostly, however, they do not know why they were done, and these products are rather unclear to them.

Within this research, there are also categories about how children explain the reason their portfolios were produced. Children have different ideas on their meaning. Some think that they are something in which pictures are put, *"so they don't get lost"*. Others believe they are a kind of *"memento"*. Most of the children, however, were unable to answer the question. In order for the portfolio to truly fulfil its objective, children should be informed on the reason it is made. In this phase we get to the question of what will happen to the portfolio. Children's responses varied, with some children saying, *"the portfolio is left at preschool"*, while others will, *"take them with them to school"*. It is a pity that portfolios are not often used in the child's transfer from preschool to elementary school. We think that the portfolio could help Year 1 teachers to find out more about the children, their interests and development in general. We can only guess as to what actually happens to the portfolios after the child leaves preschool.

The subsequent sections will present two portfolio concepts: a positivist-framed portfolio and a constructivist-framed portfolio. The two figures shown were produced using the research findings, and they are the figures used in the Trávníčková (2019) source.
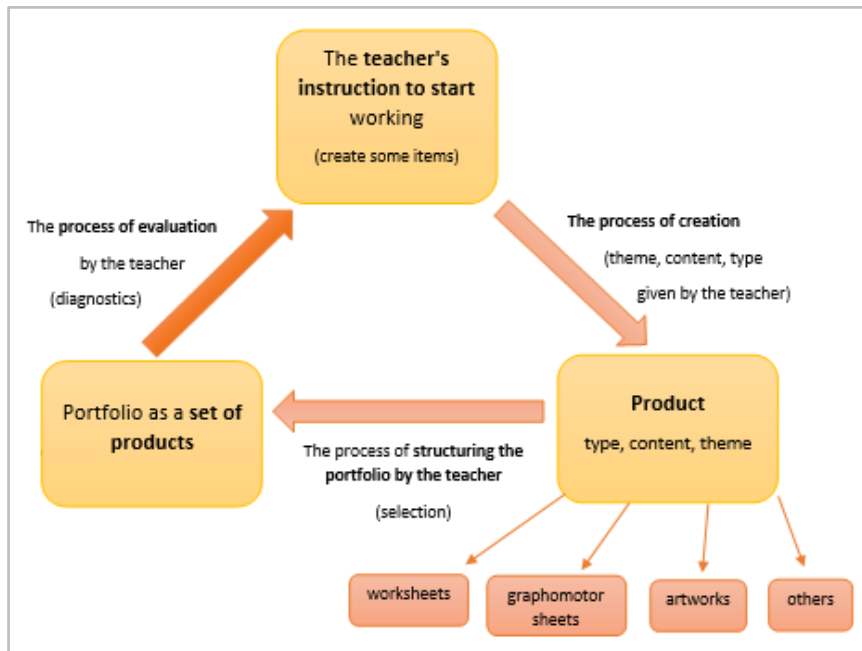
Fig. 1: Positivist-framed portfolio (source: Trávníčková, 2019)

This begins with the teacher's instruction to create the product. The child's task is to carry out the instruction. The child may of course perceive this external motive positively. The process of creating the product is directly influenced by the task. It is thus common for the content of the product and its theme to be given in advance. This is decided upon by an external authority – the teacher. The type of product is decided upon in the same way. In other words, the child is given, for example, a graphomotor sheet whose objective is to develop fine motor skills and which is on the theme of autumn crops. There is minimal invention from the child. The process of structuring is thus set by the teacher, who systematically includes the product according to specific criteria in the portfolio being made. For example, if it is a representative portfolio then the children's best products are chosen. If it is diagnostic, products of the child demonstrating his or her development are chosen. The child is only exceptionally involved in this sorting process. During this phase, a portfolio of a particular nature is produced. This might be, for example, a collection, representative, diagnostic or other portfolio. A very important phase in regard to the creation of and work on the portfolio is the process of evaluation. In a positivist approach, this is undertaken at a summation level. This means that the teacher is interested in the children's results. These are evaluated: met – not met,

able to – unable to. On the basis of this evaluation, the teacher chooses the next task – a new motive which helps the child to further develop in an optimum manner. Thus it is used mainly by the teacher to assess the child's progress. The child is not involved in this evaluation.
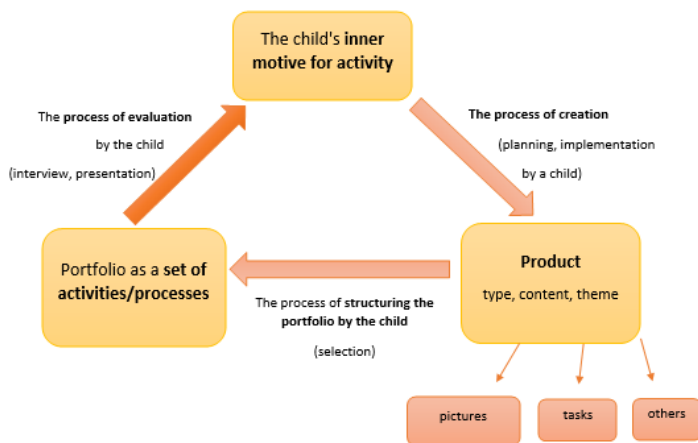

Fig. 2: Constructivist-framed portfolio (source: Trávníčková, 2019)

The child's inner motive for the activity is the first step for work with the portfolio. This step is very important and its importance rises if the motive comes directly from the child. The child as the main agent in the learning process is a typical feature of this constructivist concept. Subsequently, in the process of creation a theme and content of activity, or also product, is constructed. Both these may change during this phase. It is all up to the child. The teacher here functions as helper or advisor, but does not intervene in any major way in the child's process of creation or activity. Following these phases, a product is produced which has a particular content and theme, and we can classify it as a particular type of product, for example drawing, painting, handprints or written text. The child classifies products simply into pictures and tasks. If the product is not either of these types, then the child calls it by various names – wish, photograph, letter, puzzle, etc. Structuring can take place on the basis of identification of the product. Additional processes take place in this regard, such as planning, decision-making and selection. These processes are very difficult for the child, but their involvement in development is very large. At the end of this phase, a portfolio is produced as a set of activities, or also processes. It is not a product which is completed. It also reflects the personality, interests, skills and experiences of the individual. It is a kind of book about the child. The child has an emotional relationship to it, because they

were actively involved in its creation. Whether the portfolio is termed a collection, representative or diagnostic is not of value to the child. The child gives it their own name – e.g. My Book. The final, and also perhaps initial, phase is the process of evaluation, reflecting on the portfolio. In a constructivist concept of the portfolio, a formative type of evaluation is mainly used, in which the child is actively involved. This evaluation can be undertaken through a discussion, or presentation. The child can look through the portfolio with other children, with their parents or with the teacher. This evaluation can be the basis for another motive to create a new product. Thus very effective processes of self-evaluation and planning are undertaken here, leading directly to further leaning for the child. The teacher is also involved in this evaluation. The teacher's position, however, is again to play the role of advisor and helper. The teacher helps the child to posit questions, motivating them to further activities, and also providing the child with feedback.

Conclusion

A child's preschool age is a period of great development of all components of his or her character, thinking, and physical and mental growth. Children are often underestimated by adults, and they are not always given the space to work independently. A teacher's beliefs in their children's abilities are very important in this area, because only if the preschool teacher sees the value in using portfolios within a constructivist framework can the process work. A child's portfolio, then, is not just a set of the child's products which can be worked with in terms of evaluation, sorting and representation. It is a set of the child's activities which dominate in their centre of interest, in which products and their evaluation less focused on. Because if the centre of attention is moved to products, then the processes which took place through them will not be seen. Processes are much more important for the child than any product could be.

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