

Portfolios: An Affordable and Effective Means to Pursue Lifelong Learning

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ABSTRACT

The world has been changing quickly in these few decades leading to the emergence of new and / or increasing expectations from employers of their employees. Lifelong learning is a common strategy to cope with this, and is particularly important in professional disciplines for fulfilment of required continuing professional development (CPD) set by the related professional bodies. The possibility of a portfolio approach to lifelong learning is explored in this chapter. Issues of a portfolio including its definition, types, pedagogy, theoretical base and implementation methods are discussed. Relationships between portfolios and lifelong learning are then drawn. Adapting a portfolio to the lifelong learning context involves setting goals and plans, undertaking learning activities, capturing evidence of experiences in these activities, and reflecting on them. The outcomes of the reflection process will then inform further goal setting and planning, and hence forms a cyclic process to keep lifelong learning progressing. The portfolio becomes a track record of an individual's personal development over time and is an extremely useful support for activities such as job applications, appraisals, CPD and recognition of prior learning (RPL). Also, it helps individuals to better manage lifelong learning in their own way because the range of learning activities undertaken can be very broad and flexible, for example, new duty tryout in the workplace or taking a formal educational program. The process is self-regulatory in the manner in which it is conducted. Together with its other attractions such as a means for recognition of lifelong learning activities, negligible cost, promotion of reflective learning and practice, mapping of career pathways and development of personal and professional attributes and higher order skills, the portfolio outweighs other lifelong learning channels such as informal learning activities and formal courses.

INTRODUCTION

The world has been changing quickly in these few decades leading to the emergence of new and / or increasing expectations of employees from their employers. Lifelong learning is a common strategy to cope with this. This is particularly important in professional disciplines for fulfilment of required continuing professional development (CPD) set by the related professional bodies. The most straightforward approaches may be for individuals to pick up a book and learn, and / or to have on-the-job training in the workplace. The cost is usually minimal, however, the status may not be recognized by employers. More formal approaches can be made through a variety of workshops, seminars and courses offered by different organizations such as educational institutions and professional bodies. These can incur a considerable cost. A portfolio approach to lifelong learning is another option where the cost is negligible but it is recognized by (potential) employers and educational institutions due to its nature of evidence capturing. In some professional disciplines, portfolios are now a recognized channel for CPD clearance and this trend is increasing (Bridge & Eddy, 2006; Dagley & Berrington, 2005; Kelly, 2005). In this chapter, the relationship between lifelong learning and portfolios is discussed and practical ways of using a portfolio for such a purpose are suggested.

DEFINITION AND TYPES OF PORTFOLIOS

Portfolios originated in the artistic fields of art and photography as a collection of an individual's work to showcase examples to others such as prospective clients (Tiwari & Tang, 2003; Lettus et al., 2001; Gredler, 1995). When adapting this to the educational context, the definition became more purposeful as it provided a collection, record or set of materials or evidence representing an individual's experiences over time, so as to document progress and achievements (McMullan et al., 2003; Gallagher, 2001; Harris et al., 2001; Lettus et al., 2001; Centra, 2000; Karlowicz, 2000; Ryan & Carlton, 1997).

Gredler (1995) suggested there should be five types of portfolios that can be used in academic settings including ideal, showcase, documentation, evaluation and class formats. Of these, only the first three are related to lifelong learning, the:

1. Ideal type contains biographies of works (depth of effort), range of work (variety) and self reflections emphasizing quality of learning and development of reflective ability.
2. Showcase type is characterized by the inclusion of the best work of individuals. Again, the focus is mainly on their reflective ability.
3. Documentation format is a systematic record of the individual's work progress over time with reflection for quantitative and qualitative evaluations (Gredler, 1995, p. 433).

These three formats require individuals to take responsibility to build their own portfolios but evaluation and class formats are usually initiated by administrators of educational institutions (Harris et al., 2001; Karlowicz, 2000; Gredler, 1995, p. 433). In the lifelong learning context, portfolio activities are usually initiated and regulated by individuals rather than institution administrators. When using portfolios as evidence of professional development such as for CPD purpose, the emphasis is

always competence-based, i.e. based on occupational standards and the illustration of one's development in the workplace is an important element (Bridge & Eddy, 2006; Kelly, 2005; Storey & Haigh, 2002; Harris et al., 2001; Ball et al., 2000).

PORTFOLIO PEDAGOGY

The definition of a portfolio is ambiguous. Different definitions and meanings are expected in a variety of contexts with the two extremes being: as a collection only; or as a collection selected through the reflection process to document progress and attainment. It has been argued that the former is not a portfolio, but rather a filing process (Kimball, 2005; Watkins, 1996) which is the situation employed in the art and photography disciplines (Tiwari & Tang, 2003; Lettus et al., 2001; Gredler, 1995). Before moving to further discussion of the portfolio, the terminology and definitions should be clearly delineated. For educational purposes, the term portfolio often refers to the latter extreme and it should be termed a 'portfolio pedagogy'. Also, the former format is difficult to use as a facilitation of an individuals' lifelong learning. This is because reflection is the driving force for continuing learning as occurs in the core steps of portfolio building, 'collect', 'select' and 'reflect', noted with the second example. These steps are considered the first three most important features of a portfolio pedagogy, as set out below (Kimball, 2005; Mason et al., 2004; Pullman, 2002; Mayers, 1996; Takayoshi, 1996).

Seven Features of Portfolio Pedagogy

1. A collection of materials from an individual's experiences.
2. A selection of materials from the collection with annotations to justify the selection action, which is the outcome of reflective thinking.
3. Reflection to narrate an individual's development process and attainment through the contents of portfolio for evaluation.
4. Presumption of development.
5. Diversity of contents along and across portfolios.
6. A means of communication to readers of an individual's progress and attainment.
7. An evaluation tool (Yancey, 1996a, p. 130).

Portfolio pedagogy can also be sub-divided into two types, 'portfolio learning' and 'portfolio assessment'. Portfolio learning refers to the practice of voluntary portfolio building to document achievements and to communicate these to readers. This also leads to the evaluation of development which informs further improvement in a continuing manner. Usually, this is the type suitable for self-initiated lifelong learning activities (Finlay et al., 1998). Portfolio assessment is defined as an authentic assessment in the summative sense. This format is also related to lifelong learning but in a formal situation such as for the purposes of recognition of prior learning (RPL) and CPD (Tiwari & Tang, 2003; Lettus et al., 2001). However, in the literature, the terminologies, portfolio, portfolio pedagogy, portfolio learning and portfolio assessment are considered as synonyms and used interchangeably (Kimball, 2005; McMullan et al, 2003; Gredler, 1995). The following are their clarified definitions:

1. Portfolio: A pedagogy to facilitate individuals to exert their reflective capability to collect and select evidence of learning processes and attainments that are linked and put together in a variety of formats.
2. Portfolio Pedagogy: Same as portfolio. However, this term tends to emphasize portfolios as an educational strategy and often refers to the use in more formal situations.
3. Portfolio Learning: An application subset of portfolio pedagogy that emphasizes on individuals' learning processes.
4. Portfolio Assessment: Another application subset of portfolio pedagogy which focuses on individuals' attainment (Kimball, 2005; McMullan et al, 2003; Tiwari & Tang, 2003; Lettus et al., 2001; Finlay et al., 1998; Gredler, 1995).

THEORETICAL BASE OF PORTFOLIO PEDAGOGY TO LIFELONG LEARNING

Portfolios are relevant to lifelong learning as they follow the characteristics of adult learners. These characteristics include:

1. Self-direction.
2. Using past experiences as a rich learning source.
3. A readiness to learn developing from problems of life tasks.
4. Demonstrating curiosity and self-motivation to grow and achieve (Knowles, 1990, p. 194-195).

When using portfolios as a lifelong learning tool, the initial step is for the individual to set their goals, i.e. directions of development. The main content of portfolios are artefacts of past life experiences. New insights are developed through critical reflection on these experiences and inform possible directions to tackle problems of the life tasks. This leads to the next goal setting stage and hence forms a cyclic process to demonstrate growth and achievement (Dagley & Berrington, 2005; Shakespeare, 2002).

IMPLEMENTATION METHODS

In academic settings, guidance which is crucial in the portfolio approach to education is always provided to students in advance. These guidelines are usually related to course objectives (Mason et al., 2004; Gordon, 2003; Lettus et al., 2001; Snadden & Thomas, 1998; Ryan & Carlton, 1997). Such an arrangement is called a standards based portfolio (Gallagher, 2001). When using portfolios for a more formal lifelong learning situation such as CPD, the standards would be competence criteria set by registering authorities or particular occupations (Ng et al., 2008b). However, this may be irrelevant in the personal development type of lifelong learning. In this situation, individuals are required to identify their own learning needs which then become the goals, equivalent to professional standards. In the real situation, these two approaches can combine together in one portfolio. The next step is to propose learning activities to meet the standards / goals and this can be as simple as being aware of any learning opportunity in daily life and reflecting on it or a formal learning situation. The rest of the processes are more or less the same as the academic portfolio (Dagley & Berrington, 2005; Kelly, 2005).

Flexibility in the collection and selection of evidence of learning processes and attainment is a feature in the portfolio building process (Mason et al., 2004; Lettus et al., 2001; De Natale & Romeo, 2000; Ryan & Carlton, 1997). Guidelines and instructions for developing reflection are also important, which will be further discussed in a latter part of this chapter. Reflective skills are then further developed through the ongoing process (Mason et al., 2004; Pullman, 2002; Howard, 1996; Mayers, 1996).

The range of formats of a portfolio is wide. Basically, it can be categorized into hardcopy (Bridge & Eddy, 2006; Mason et al., 2004), electronic (Kimball, 2005; Duque et al., 2003a & b), and flexible, from A4 folders to computer-held records (Snadden & Thomas, 1998; Mayers, 1996) so as to accommodate the uniqueness of an individual's work (Lettus et al., 2001). Usually, the hardcopy portfolio is referred to as a paper portfolio characterized by contents which are in the form of paper stapled and put in a three-ringed binder or in a folder (Bridge & Eddy, 2006; Kimball, 2005). Electronic portfolios are the other extreme in which contents of portfolios are put into electronic media such as the hard drive (Fischer, 1996; Wall & Peltier, 1996), floppy disk (Mayers, 1996; Wall & Peltier, 1996), optical disk (Campbell, 1996), CD-ROM (Purves, 1996; Yancey, 1996a & b), network file folder system (Forbes, 1996; Howard, 1996), bulletin board system (BBS) (Mayers, 1996; Wall & Peltier, 1996), World Wide Web (WWW) (McShane, 2005; Knadler, 2001), database (Dagley & Berrington, 2005) or web database (Ng et al., 2008b; Lawson et al., 2004).

BENEFITS OF PORTFOLIO APPROACHES TO LIFELONG LEARNING

A Means for Recognition of Lifelong Learning Activities

Often, a portfolio is labelled as a form of alternative assessment. In contrast to traditional assessments, such as multiple choice questions which are characterized by measurement of factual knowledge and decontextualized issues, the portfolio aims to gauge complex intellectual capabilities (Ng et al., 2008a; Tiwari & Tang, 2003; Forker & McDonald, 1996; Gredler, 1995). Indeed, competence is considered a complex intellectual capability (McMullan et al., 2003; Williams & Berry, 2000; Gonczi, 1994). Therefore, intrinsically, portfolio assessment is an individual competence assessment instrument. This mode of operation is common in using portfolios for CPD clearance which requires individuals to provide evidence of development related to their professions, i.e. competence development for re-registration (Bridge & Eddy, 2006; Dagley & Berrington, 2005; Kelly, 2005; Storey & Haigh, 2002; Harris et al., 2001). Although portfolio assessment may not directly gauge an individuals' performance, it can tap measures of competence as an indirect approach of competence assessment (Wakeford, 2000). Therefore, portfolios have the capability to measure attainment of different competence standards by incorporating various kinds of evidence representing these aspects (Ng et al., 2008a).

The portfolio captures evidence of an individual's experiences in different forms as a record to document development. When applied to lifelong learning, it is feasible to collect different learning outcomes such as, for example, the products from a new duty tryout in the workplace as evidence for portfolio building. In this sense, portfolios become a comprehensive framework to integrate all learning outcomes to gauge an individual's abilities to meet professional competence requirements, as

suggested by Mason et al. (2004) and McMullan et al. (2003). Indeed, this is not a new idea in the education literature where it is known as the documentation type of educational portfolio, appropriate to gauge competence against different criteria (Gredler, 1995). The portfolio, therefore, is an effective and efficient way to measure and record an individual's personal achievements and professional accomplishments in terms of occupational standards and competences. Through critical reflection on learning experiences, individual, separate evidence of professional and competence development are integrated and organized into a meaningful sense, i.e. a simple, clear and manageable display of attainment which is useful for job applications, appraisals, CPD and RPL (Ng et al., 2008a; Mason et al., 2004; McMullan et al., 2003; Ryan & Carlton, 1997).

Promotion of Reflective Learning and Practice

Although the portfolio as a means of recognition of lifelong learning activities may be the major reason driving individuals to use one, there are other attractions worthwhile considering, especially for causal learning situations. The first is the promotion of reflection. In the portfolio building process, the three most important steps are 'collect', 'select' and 'reflect' and each requires a reflective capability. Individuals are first expected to 'collect' evidence of development which involves reviewing their experience for the selected area such as the learning goal. The collected evidence represents this as the best evidence, i.e. it becomes the 'selection'. 'Reflect' refers to the written account / justification of the evidence provided, for example, responses to questions like how learning occurred and why and any failed or incomplete area, so as to identify personal strengths and weaknesses (Ng et al., 2008a & b; Kimball, 2005; Mason et al., 2004; McMullan et al., 2003; Karlowicz, 2000).

Although, in reality, portfolios from different individuals would vary in the depth of reflection, it is suggested that the promotion of reflection is the greatest value of portfolios as this facilitates the authors to become reflective learners (Gordon, 2003; Dornan et al., 2002; Pitts et al., 2001), who engage in constant self-reflection in any activity such as learning and in the workplace (Lonka et al., 2001). The effect of reflection may not be obvious immediately but this encourages individuals to consider their practice in the future and hence the portfolio has the potential to promote theory to practice integration (Shakespeare, 2002). Harris et al. (2001) also suggests that portfolios are a way to solve the theory practice divide as there is a reflective component inside the portfolio development which provides a tangible bridge for the theory practice gap.

Mapping of Career Pathways

The promotion of constant reflection through the use of a portfolio is not only beneficial for individuals to integrate theory and practice, since portfolios usually also require reflection on the strengths and weaknesses in an individual's development. It also provides for a clear picture which highlights the degree of suitability of different career paths so this becomes a tool for authors to map their career pathways (Weddle et al., 2002). Through tracking the record within the portfolios, the direction of development is demonstrated and thus provides a blueprint for career advancement (Ryan & Carlton, 1997).

Development of Personal and Professional Attributes

In portfolio building processes for lifelong learning, individuals are required to take responsibility for the direction, progress and quality of their learning, as well as the development of better study skills and hence this facilitates individuals to become self-motivated, autonomous learners with a sense of accountability (Mason et al., 2004; Tiwari & Tang, 2003; Dornan et al., 2002; Harris et al., 2001). It is also noted that the process of building and maintaining a portfolio can promote an individual's internalization of professional and lifelong learning (Mason et al., 2004; Alexander et al., 2002). Other developments brought by portfolio activity include development of a clearer understanding of personal and professional values for practice (Gordon, 2003) and an increase in the sense of self-esteem due to the realization of strengths and weaknesses and ways to overcome the latter (Pitts et al., 2001; Ryan & Carlton, 1997). In turn, this becomes a tool to build professional confidence (Mason et al., 2004; Tiwari & Tang, 2003; Pitts et al., 2001; Snadden & Thomas, 1998; Ryan & Carlton, 1997). Portfolio based learning is a way to facilitate personal and professional development of individuals, which is difficult to achieve via other more conventional approaches (Ng et al., 2008a; Pitts et al., 2001; Ball et al., 2000).

Development of Various Skills

Since portfolios as an alternative assessment strategy can measure a range of complex skills such as critical thinking, problem solving, decision making, analysis and synthesis, as well as ethical and communication abilities, this facilitates individuals to develop these skills in the process (Ng et al., 2008a; Ramey & Hay, 2003; Lonka et al., 2001; Forker & McDonald, 1996). Lettus et al. (2001) believe there is a mechanism behind known as the positive backwash effect which refers to assessment driving individuals' learning of higher order skills (Tiwari & Tang, 2003).

Apart from the positive backwash effect, portfolio activity also creates opportunities for other skill developments, such as peer collaboration (Mason et al., 2004; Tiwari & Tang, 2003; Forker & McDonald, 1996). In the study conducted by Tiwari & Tang (2003), it was found that spontaneous collaborative learning took place within the portfolio building process. Peers formed groups to support each other, share and discuss how to write up their portfolios. This implies that participants developed skills for managing the portfolio process and, to a further extent, a way to support themselves to develop lifelong learning skills (Mason et al., 2004; Harris et al., 2001). This kind of collaborative activity also fosters engagement in interactive reflective communication, as suggested by Ryan & Carlton (1997). The writing component of portfolios facilitates individuals to polish their written communication skills (Alexander et al., 2002). Although improvements in creativity are also expected in portfolio learning (Gordon, 2003; Ramey & Hay, 2003; Alexander et al., 2002), it seems this depends on the portfolio format (Gredler, 1995).

OBSTACLES OF PORTFOLIO APPROACHES TO LIFELONG LEARNING

When compared to other approaches used to pursue lifelong learning such as through formal workshops, seminars and courses offered by, for example, educational institutions, individuals using a portfolio framework are likely to assume greater responsibility for the direction, progress and quality of learning and become self-

motivated, autonomous learners with a sense of accountability (Bridge & Eddy, 2006; Mason et al., 2004; Tiwari & Tang, 2003; Dornan et al., 2002; Harris et al., 2001). Although these are the benefits of portfolios, they may also become the obstacles. Also, a considerable amount of time is required if benefits are expected as a result. Individuals may therefore be reluctant to utilize portfolio learning. However, their views will likely change over time from negative to positive when perceived benefits accrue (Shakespeare, 2002; Harris et al., 2001; Lonka et al., 2001; Karlowicz, 2000; Ryan & Carlton, 1997). These issues, however, could lead to another problem, i.e. a lack of cost-effectiveness which becomes a hindrance for promoting the activity (Lettus et al., 2001; Wakeford, 2000). If the cost is justifiable, the impact is minimized. In the lifelong learning situation, the financial cost of portfolio building is negligible because it can be just in the form of paper stapled and put in a ringed binder or folder, i.e. paper portfolios (Bridge & Eddy, 2006). Other costs may be the time and effort put into the process. However, this is a self-directed activity so individuals have the freedom to decide their own way and learning pace (Dagley & Berrington, 2005). Other possible problems of portfolios could be storage and management. Through the introduction of computer technology, maintenance of portfolios over a long period of time, a whole working life, is an easier task (Ng et al., 2008a & b; Bridge & Eddy, 2006; Dornan et al., 2005; Karlowicz, 2000).

PRACTICAL WAYS OF THE USE OF PORTFOLIOS FOR LIFELONG LEARNING

Goal Setting

Portfolios are a self-directed learning activity. Setting an appropriate direction is crucial to driving successful lifelong learning activities. As discussed above, portfolios for lifelong learning can be divided into two types, one focussing on attainment, i.e. portfolio assessment and the other emphasizing the learning process, portfolio learning. Usually, the assessment type is more popular because it is more related to job applications, appraisals, CPD and RPL (Dagley & Berrington, 2005; Tiwari & Tang, 2003; Lettus et al., 2001; Finlay et al., 1998). Hence, the goals are usually based on work related requirements / selection criteria in job applications, performance indicators in job appraisals, competence requirements / occupational standards in CPD and course syllabuses for RPL (Dagley & Berrington, 2005; Kelly, 2005). With portfolio learning, there is less demand on goal setting although it is necessary. Individuals may start by keeping their own diaries to record daily life and working experiences. Patterns and themes will be recognized from the diaries after a period of time. This informs possible directions for lifelong learning and the establishment of learning goals. Peer review (collaborative learning) of goal setting and other portfolio processes are always encouraged (Bridge & Eddy, 2006; Dagley & Berrington, 2005; Mason et al., 2004; Tiwari & Tang, 2003; Shakespeare, 2002; Forker & McDonald, 1996).

After setting the goals, individuals need to consider the format of their portfolios. It can be one of the media noted in the previous section, 'Implementation Methods'. Although it may seem easier to start from paper portfolios, electronic portfolios do provide better storage and management (Ng et al., 2007, 2008a & b; Bridge & Eddy, 2006; Kimball, 2005). At an individual level, the web portfolio, compared to other forms of electronic portfolio, is often a popular choice because it performs better in

collaborative learning, storage and management, portability and access, interactivity, flexibility, multi-media contents, equity, and cost of implementation and maintenance (Ng et al., 2007; Bridge & Eddy, 2006). Although there may be some concerns or difficulty in establishing web pages (portfolio building) and its security, this depends on the approaches taken to construct the web portfolio. There are many web authoring tools such as Microsoft Frontpage and Adobe Dreamweaver available in the market place. Users can make use of the templates and wizards to conveniently create web pages. However, the easiest way to build a web portfolio is to use Microsoft Word. For example, after an individual has decided the learning goals, they can be typed into a Microsoft Word document and eventually saved as a web page. The process is more or less similar to saving a document (Bridge & Eddy, 2006). Security issues can be simply resolved if necessary by not putting the web portfolio online (Ng et al., 2007).

Learning Plan

After recording the learning goals in either a paper or an electronic medium, it is necessary to determine learning activities. Again, this is a self-directed activity that needs to be related to the goals. For an informal situation, i.e. portfolio learning, it can be simply a reflection on critical incidents of life and working experiences relevant to the pre-determined goals. More formal activities can be to read relevant learning materials such as journal articles and books or attempting new duties. At a more formal level, workshops, seminars and courses are possible choices. Learning activities can be a mix of formal and informal formats, depending on practical and financial feasibilities (Bridge & Eddy, 2006; Dagley & Berrington, 2005; Kelly, 2005). It is then necessary to establish a stage of progress which is the period of time for individuals to develop from one level to a higher level. All information for the learning plan is recorded in the portfolio (Ng et al., 2008a).

'Collect', 'Select' and 'Reflect'

When the learning activities are set in the plan, the core steps of portfolio building, i.e. 'collect', 'select' and 'reflect' begin. Individuals are first expected to 'collect' evidence of development which involves reviewing their learning experiences for the selected goal, and choose the best for inclusion, i.e. 'selection'. The following question would help in the collection process:

What is the relevance of this evidence to this goal?

It is then necessary to critically review the collection of evidence, i.e. 'select'. The following question would help in the selection process:

Why do you think this is the most / least important evidence?

The 'reflect' step is the final stage which refers to the written account / justification of the evidence provided, for example, and is supported by responses to questions such as:

How do you think the experience selected shows your development for this learning goal?

Do you see any area requiring further development based on the experience?

How can you improve yourself on this area next time?

From this evidence what do you see as your particular strengths?

Selected artefacts such as, for example, an outcome of a new duty tryout, a journal article or certificate of attendance are then included in the portfolio. The format of artefacts is not limited and this often depends on an individual's creativity in making the decisions. Electronic portfolios are able to incorporate multi-media contents such as audio and video clips. The number of artefacts necessary to support a presumption of development depends on the situation, however, the fewer the better because this then requires individuals to exercise their critical and reflective thinking when making the selection. Finally, each piece of evidence should have one written account (reflective discussion) to justify the development encountered in the experience. A portfolio covering letter is usually helpful to present an organized, overall picture of development to potential readers. Part of the outcomes of this reflection process is to inform the next goal setting and planning stage, developing the cyclic process to keep lifelong learning progressing (Ng et al., 2007, 2008a & b; Bridge & Eddy, 2006; Kimball, 2005; Mason et al., 2004; McMullan et al., 2003; Karlowicz, 2000).

The issue of the quality of the portfolio process may be questionable in this lifelong context because formal facilitators and reviewers who support the portfolio building and evaluation processes are usually unavailable in this setting. Reflection for 'collect', 'select' and 'reflect' is always a complex process. Simply being based on the above probing questions may be inadequate. However, the quality of portfolios, such as the reflective content, can often be increased through collaborative learning and peer review which also serves as a way of portfolio evaluation. The reflective learning ability should gradually be developed over time when individuals consider peer feedback and take this into account each time in building portfolio (Ng et al., 2007, 2008a & b; Dagley & Berrington, 2005; Gordon, 2003; Dornan et al., 2002; Pitts et al., 2001).

CONCLUSION

In this chapter, issues relating to the use of portfolios including definition, types, pedagogy, theoretical base and implementation methods are discussed. The relationships between portfolios and lifelong learning are drawn. The attractions, obstacles and practical portfolio approaches to lifelong learning are suggested. Portfolios are an affordable and effective way in which to manage, record and demonstrate lifelong learning activities. Their negligible cost means portfolios outweigh other alternatives such as informal learning activities and formal courses. Additional attractions also accrue which are not noted in these other activities such as the promotion of reflective learning and practice, mapping of career pathways, and the development of personal and professional attributes and higher order skills. For those individuals who decide to take up lifelong learning, obstacles of time and effort will presumably be settled and this chapter provides practical ways of managing this development. In taking on the process of portfolio development, there is the freedom to determine the pace and manner of learning for individual needs.

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