

**Enhancing reflection and deep learning through ePortfolios: Analysis of eight
Ottawa-area personal trainers' perceptions on ePortfolios in a Kinesiology
setting**

by

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Abstract

In this research project, the potential of integrating ePortfolios into the reflection and assessment component between a personal trainer and client was examined. Research demonstrates that more effective learning occurs when reflection and engagement are integral components. The problem that this thesis aimed to answer was the importance of enhancing student engagement, in the classroom and beyond. New technology applications like ePortfolios allow for great student reflection and deep learning but are not universally applied. As such, this study explored the potential of integrating an e portfolio as a reflection technology to enhance engagement during learning. While ePortfolios are commonly found in an academic setting, professionals in healthcare have also used ePortfolios with their patients, clients or peers. Could ePortfolios be used by personal trainers, clients, coaches and athletes? If so, how? What would be the outcomes? The focus of this research project was to explore the potential of integrating ePortfolios into the reflection and assessment component between a personal trainer/client. Eight trainers throughout the Ottawa area were interviewed to gain an understanding of their perception on the ways in which trainers could enhance their client's fitness journey through the use of an ePortfolio and if so, how would the ePortfolio would be used. The results of this research project provided insight as to whether or not reflective technology strategies such as ePportfolios would enhance the client's fitness journey and if so, how would the ePortfolio be used. Ultimately, this thesis will inform our understanding of how ePortfolios can be transferred from an academic setting to foster deep learning in kinesiology settings.

To date, very little research has been done on this topic, so this thesis project will help fill the gap in the literature on understanding how ePortfolios can be used in kinesiology/leisure settings. As such, this project seeks to make a modest contribution to the growing literature on

diversifying training, reflective and motivation applications used by Human Kinetics students and professionals.

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Chapter 1: Parameters of the study: Literature review, theoretical and methodological frameworks

Introduction

There is an important need to enhance physical activity engagement in the classroom and beyond. Research demonstrates that more effective learning occurs when reflection and engagement are integral components. New technology applications like ePortfolios allow greater student reflection and deep learning. ePortfolios created by students or a mentor are used to compile information, reflect, and assess an experience (Tosh, Werdmuller, Chen, Light and Haywood (2006). This thesis focused on the potential of integrating ePortfolios in a Human Kinetics educational setting and professional practice. More specifically, it was explored how ePortfolios could enhance the reflection and assessment component between a personal trainer and the client. Throughout this manuscript, the importance and potential of ePortfolios were discussed as a partial solution to the lack of support and engagement in physical activity

Lawton & Purnell (2010) define an ePortfolio as a ‘system that allows users to record any events or thoughts that are personally significant; it allows these records to be linked by other data sources and allows the user to integrate present data with their personal data’ (Lawton & Purnell, 2010, p. 4). ePortfolios can enhance student learning and engagement in three distinctive practices: collection, selection and reflection (Tosh et al, 2006). Students can collect their ideas, knowledge and experiences and virtually place these reflections into one location. It allows the students to link their experiences, ideas from other students, apply it to the topic of discussion and critically reflect to foster deep learning. An ePortfolio encourages the student to

reflect, thus facilitating deep learning. According to Race (2011), there are 7 crucial factors that encourage successful engagement 1) Wanting to learn 2) Taking ownership of the need to learn 3) Learning by doing – practice, trial and error, repetition and experience 4) Learning through feedback – praise, criticism, seeing the results, developing confidence 5) Making sense of what is being learned 6) Deepening learning by communicating it – explaining to others, coaching others, teaching others 7) Making informed judgments – assessing one’s own evidence of achievement and that of others – self- and peer-assessment (Race,2011). Race (2011) believes that the best way to learn is to “do”. Agreeing with other experiential advocates, Race (2011) emphasizes the significance of having feedback from other people while highlighting the importance of reflecting on one’s learning experience (Race, 2011). An ePortfolio fulfils these objectives and goes beyond to help the individual develop a sense of ownership of their learning. Race (2011) describes this progression as “digesting” (Race, 2011) creating a sense of internal motivation. The idea of internal motivation was drawn from the work of Kolb (2008) who said that it is the drive that makes a person want to learn something in the first place (Race, 2011). Race (2011) describes this motivation as “needing/wanting”. Having ePortfolios available to tech savvy individuals will encourage and motivate the individual to want to participate in the ePortfolio application.

Enhancing a student’s social skills of reflection, empathy and effective communication can be achieved through varied pedagogical exercises that promote self-awareness and reflection. In ePortfolios, these can usually be acquired through commentary, evaluation and feedback from professors. Jeffery Young (2002) describes an ePortfolio as an “extensive resume” that can link student ideas, feelings, provide pictures, and solve problems and anything else that displays the individual’s experiences and activities, all under the careful mentorship of a supervisor/professor

(Young, 2002). By using an ePortfolio to perform the above-mentioned activities, several of Race's (2011) characteristics in successful learning can be fulfilled. The individual is able to reflect, learn through constructive criticism and link experiences/knowledge to the ePortfolio topic. In a study conducted by Miller & Morgaine (2009), ePortfolios improved a student's ability to transfer learning to different environments and scenarios (Miller & Morgaine, 2009). Through interviews with students in an academic setting, Rossi et al (2008) concluded that ePortfolios allow students to reflect and improve the continuation of different levels of analysis in their respectful leaning paths. The students also commented that ePortfolios could help build a framework for their professional skills (Rossi et al., 2008). Hence, ePortfolios have the potential to provide a strong affective learning tool, and increase individual reflection and peer-supervisor feedback. While ePortfolios are commonly found in an academic setting, other professionals in healthcare are also known to have also used ePortfolios with their patients, clients or peers. Could ePortfolios be used by personal trainers, clients, coaches and athletes? If so, how? What would be the outcomes? The focus of this research project was to explore the potential of integrating ePortfolios into the reflection and assessment component between a personal trainer/client in a Human Kinetics educational or professional setting

Thesis outline

Chapter one of the thesis will identify the needs, roles and support that ePortfolios could provide in a kinesiology/professional practice setting. It provides an overview of relevant literature, and will explain my adopted theoretical and methodological frameworks. The literature review is organized in a way to explain to the reader the importance of ePortfolios, the relationships of trainers and their clients, and the impact that ePortfolios would have on those relationships. It is divided into four sections: reflection, deep learning and ongoing involvement,

and creating an ePortfolio and ePortfolios as an assessment component in professional settings. Following this section, there is a discussion of the theoretical framework adopted for this research study; the social ecological theory. The methodological section that follows explains that the research was viewed from a socio-cultural perspective and what methods were used to collect and analyze the data. The second chapter is in the form of a journal manuscript that explores the personal trainer's perspectives on the benefits of integrating technology in their professional practice. The trainers will explain what they use, how they use the tools, what they consider effective, and what has shown to be ineffective. The information provided from the trainers will form the basis of the third chapter in the form of a second manuscript that explores the trainers' suggestions as to what they would like to see in an ePortfolio template created for a client/trainer relationship. The final chapter provides a general discussion on my findings on ePortfolios in Human Kinetics educational settings and professional practices, and situates my findings within the literature. I will also discuss study limitations and potential future directions of study. The appendices include the interview guide, the information sheet for participants, ethics approval and the participant recruitment poster.

Key terms

To ensure consistency and clarity, several key terms and concepts used in my thesis project are defined.

Assessment: The evaluation of a topic or situation. It does not have to be graded, but the individual being assessed will use the feedback to improve one's self. For the purpose of this paper, ePortfolios were used as the instrument of assessment.

Client: The client is the individual who is on the receiving end of the personal trainers', directions. The client usually pays for the personal trainers' services to reach his/her personal goals relating to health, fitness, maintenance and reaching a generally increased wellbeing. Sessions can be once and awhile or on a regular schedule, a few times a week for a few months. The individual trusts that the personal trainer they hire will help them reach their desired goals through dedication, commitment and advice.

Deep learning: "Deep learning involves paying attention to underlying meaning. It is associated with the use of analytic skills, cross-referencing, imaginative reconstruction and independent thinking" (Warburton, 2003, p.45). Deep learning is facilitated by the making of connections from other learning experiences that happen in several different contexts and environments (Tosh et al, 2006).

ePortfolio: "A system that allows users to record any events or thought that are personally significant. It allows the records to be linked by other data sources and allows the user to integrate present data with their personal data" (Lawton & Purnell, 2010, p.4)

Fitness journey: An individual's path, mentally and physically to achieve their desired fitness goals. This could include weight loss; increase self-confidence, healthy living and overall stability and regularity in one's life.

Outcomes: Is the way something turns out, or the consequence. It is the end product or result obtained following specific actions (Albert, 1998).

Personal trainer (PT): The main role for a personal trainer is to maintain, increase and support an individual to reach certain objectives in a fitness context. The trainer can work one on one or within a group to help a client reach their desired goals. The client looks to the trainer for

expertise, knowledge, inspiration, and leadership to guide them through the process. The client trusts the personal trainer to help meet objectives related to health, appearance, self-esteem, quality of life and wellbeing (Abrahman, 2001).

Reflection: A mental process involving an individual to look back on an experience where knowledge was gained. The individual can reflect back on this experience and use the knowledge in present day or future situations.

Researchers are increasingly interested in exploring how digital technologies can be used to foster social interactions, reflection and learning (Persell, 2004). Specifically, researchers seek to understand how digital technologies might further the development of a community of learners. This thesis will build on the literature on ePortfolios as a complementary pedagogical tool in academic settings, and explore how they could be used in a personal trainer/client setting.

This literature review is organized into four main themes that emerge from the literature: 1) reflection, 2) deep learning and ongoing involvement, 3) ePortfolios in professional settings and 4) ePortfolio creation. The literature review search was conducted using six main keywords (ePortfolios, benefits, reflection, deep learning, professional, impact, evaluation, and learning). While the literature in education is vast, limitations were made to assess literature that related to using ePortfolios in academic, professional and health sciences settings, with particular focus on reflection practices that could be transferrable to other non-academic settings. Additional keywords added to the search included: personal trainer, Human Kinetics, Kinesiology, Health Sciences, workout log.

1.1 Literature review

Reflection

A useful strategy for the facilitation of learning is reflection. Rossi, Magonler & Giannandrea (2008) argue that there are different reflection levels that are needed to occur. Student reflection can be enhanced through the use of programs and tools that guide them through various stages of thinking about and making sense of their experiences, and linking them to knowledge acquired in classroom curricula. Sherman (2006) believes that the most effective review activities are those that reflect on what the individual has learned. ePortfolios allow for individuals to reflect on their learning and experiences. ePortfolios are semi-structured, in that there are mandatory categories that must be completed, but also has ample space for the individual to write their own information, thus providing the opportunity for him/her to self-evaluate and self-reflect. As such, an ePortfolio gives the opportunity to document their learning path and reflect upon doing it. Furthermore, the objectives that are obtained through ePortfolios include the reflection on experiences based on practices and theories and how they may relate. Through his/her reflection in the ePortfolio, one creates a personal perspective which can be debated with others personal points of views (Rossi et al, 2008). ePortfolios can be used for communication, community building, and creation of free writings to support reflection. Rossi et al (2008) state that these types of “voluntary” actions signify an additional significance to the objectives and to the learning paths found in e portfolios (Rossi et al, 2008).

In sum, a good ePortfolio always includes the practices within the broad concept of metacognition, allowing students to reflect on their work and think about the progress in learning (Miller & Morgaine, 2009). Miller & Morgaine (2009) draw off the works of Bransford, Brown

and Cocking (2000) when defining metacognition. Metacognition is defined by Bransford et al (2000) as an “internal conversation” that students have with themselves allowing themselves to understand and monitor their own work (Bransford et al, 2000). It is believed that by emphasizing metacognition, it can improve student achievement by developing in students the skill to learn on their own (Miller & Morgaine, 2009). By using an ePortfolio, an increase in opportunities for metacognition will arise through reflections, which ultimately will help students reach their desired outcomes and foster skill development.

Deep learning and ongoing involvement

Deep learning is facilitated by the making of connections from other learning experiences that happen in several different contexts and environments (Tosh et al, 2006). It allows for critical awareness and comparison with prior knowledge of the topic, acknowledging your personal skills and being able to transfer the competences to other domains, and recognizing areas of improvement and of possible development ideas (Rossi et al, 2008). ePortfolios are commonly used to enhance ongoing involvement, professional development and/or accreditation to prior learning (Tosh, Werdmuller, 2004). The individual recognizes their own perspectives as a result of learning from an array of informal and informal contexts. Ongoing involvement is a skill that individuals carry throughout their lifetime as a way to apply previous knowledge and experiences to present time situations. This ongoing involvement could eventually be coined lifelong learning. Lifelong learning is not confined to childhood experiences and the classroom, but carries on throughout one’s life (Tosh and Werdmuller, 2004). Tosh and Werdmuller (2004) discovered that the use of ePortfolios can be used as an “online landscape” providing long term deep learning in an individual – not just as a temporary tool. A study shows that using an ePortfolio continuously, rather than only after a body of knowledge has been learned, is

significantly more beneficial for the individual. Emmett (2003) describes an ePortfolio as a personalized web based collection of experiences with supportive items that creates the core element of the ePortfolio (Emmett, 2003). Emmett (2003) states that the growth in the use of ePortfolios across all sectors of education has significantly increased in recent years. With the advancement of technology, ePortfolios have been chosen by different professions as a deep learning and reflection application for the students. The learner is able to use the ePortfolio outside of the classroom setting in other environments, courses, and experiences (Tosh et al, 2006).

Using ePortfolios in social networks and weblogs, the individual can relate everyday issues related to their fitness goals and share it with their public for feedback and further support (Tosh & Werdmuller, 2004). Incorporating social networks and web blogs will encourage the individual to grow not only academically but socially as well. Being socially involved is important in physical activity as it can be a key determinant for individuals when participating in physical activity. For those who cannot get to a gym physically, using web blogs and ePortfolios can be used as a substitute for the socializing aspect. By allowing access to these specific individuals to an ePortfolio, it can mean that they will have not missed out on progress reports, can keep track of their feelings/thoughts/experiences and attitudes towards the progress they are making – while allowing both the trainer and client to access the portfolio. Tosh & Werdmuller (2004) state that being able to draw information from other resources, share ones thoughts/feelings and interact with others through an ePortfolio will boost user commitment, produce deep learning and will be a beneficial cognitive and affective learning tool for the individuals.

As valuable as ePortfolios are for students, they have been proven to be just as equally beneficial for faculty, departments and institutions (Miller & Morgaine, 2009). ePortfolios can be used as a rich application for both students and educators in many different domains to learn about achievement in specific topics, make connections, gain awareness to improve and develop identities (Miller & Morgaine, 2009). Emmett (2003) believes that the ePortfolio has the potential to produce the achievement of many different goals, from the student and mentor's perspective. Emmett (2003) lists the following as benefits that can be created from using an ePortfolio approach: the assessment of learning effectiveness, the ability to demonstrate competence to external stakeholders, student self-auditing, the ability for the student and other stakeholders to view developed over time, increase interactivity among peers, teachers and external viewers, the organizations of students thoughts and providing the visitor with a much better understanding of who the owner is and how he or she thinks (Emmett, 2003, p 2)

ePortfolios are receiving increased support as a way for faculties, students and intuitions to learn, evaluate, and communicate through a virtual tour (Emmett, 2003). For the purpose of this study, the relationship between personal trainers and their clients through the use of ePortfolios were explored. As previously mentioned, ePortfolios can support deep learning. Deep learning is facilitated by the making of connections from other learning experiences that happen in several different contexts and environments (Tosh et al, 2006). Deep learning is considered to be extremely essential in the sustainability in education (Warburton, 2003). This becomes true when holistic awareness and the ability to organize and differentiate areas of information into a logical whole is needed. It involves the individual to pay attention to the underlying meaning and usually involves cross-referencing other areas of knowledge (Warburton, 2003).

To encourage deep learning through an ePortfolio, all dimensions of engagement need to be present – social, academic and intellectual (Dunleavy & Milton, 2008). Having all three dimensions present has shown far more students to become effective learners (Dunleavy & Milton, 2008). ePortfolios help individuals to use their minds through the use of deep engagement through using reflective skills, knowledge and temperaments that support them in their present and future life experiences (Dunleavy & Milton, 2008). Dunleavy & Milton (2008) propose that adding just as much focus on intellectual engagement as the social and academic dimensions will assist in creating a more complex and thorough learning path. Each dimension, social, intellectual and academic, structures the conditions and outcomes of engagement differently. When considered together, they are not only complementary but offer distinct perspectives allowing students to take their own approach (Dunleavy & Milton, 2008). It is an important factor when trying to create deep learning, that both the students and the teachers are engaged. Having both parties participating will transform the classroom setting and learning objectives into places of effective teaching and deep learning (Dunleavy & Milton, 2008). Deep learning is thought to be internally motivated. It influences the individual to connect ideas with a purpose to really understand, rather than to just pass a task (Warburton, 2003). For the selected population seeking to enhance their physical activity workout, the trainers participating in the study should understand the importance of not just having their clients lose the desired weight, but teach them how to keep it off, how to use the equipment, set up routines, how to build muscle, how to train for marathons and how to adopt a healthy active lifestyle.

This literature review demonstrates that ePortfolios could support an individual through feedback, reflection and deep learning. By following the appropriate guidelines of Rossi et al (2008) for creating an ePortfolio, a mentor/teacher would be able to give the support a student

needs to be successful in a learning atmosphere. The ePortfolio could enhance student learning and engagement in practices by collecting the student's ideas, knowledge and experiences and virtually put them into one location. The use of an ePortfolio could allow students to reflect and continuously improve the maintenance of different levels of analysis in their respectful learning path. Comparatively, ePortfolios can be also used in other professional settings, such as healthcare.

ePortfolio creation

Rossi et al (2008) argue there are at least three main guidelines that should be kept in mind when creating an ePortfolio: the e portfolio should have mandatory and voluntary activities, the learning path is coherent with the reflection objectives, and the experts provide support. These guidelines will allow for the individual to enter free text, and will encourage collaborative activities and allow for the interaction between theory, practice and perspectives (Rossi et al, 2008). Rossi et al (2008) argue that by having structured spaces within the mandatory activities will help guide reflection. For effective student engagement, an ePortfolio needs to have structured activities while allowing voluntary student-directed activities as well (Rossi et al, 2008). The ePortfolio needs to have an organic structure offering support for its application while also offering motivation (Rossi et al, 2008). Allowing students to enter their own text into the ePortfolio allows him/her to enter information that the evaluator may not have foreseen. The student can make connections, provide reflection and make comments. Lastly, setting up the ePortfolio's application in correlation to the targeted population's needs and desires is necessary to make it user-friendly. When deciding on an ePortfolio program, one needs to ensure it will sync with the students' available resources, is user friendly, compatible with

other reflection programs being used (i.e., blogs, tumblr, etc.) and relatable to the context in which the ePortfolio is being used (Emmett, 2003).

It is important to understand the difference between blogs/new social media and ePortfolios. While very similar, the minor details are what make the difference between the two. The term blog is actually a conjunction of the two terms web log. Epp and KcKee (2010) continue to explain that a blog is a website, usually developed and maintained by an individual, who on a regular basis, adds text, commentaries, descriptions of events, and other material such as graphics or videos (Epp & McKee, 2010). Usually, the information displayed in the blogs give links to other blogs or websites allowing an outside individual to further their knowledge on the topic. A blog usually allows for an individual to leave comments as well (Epp & McKee, 2010). ePortfolios can either be an open source (such as Mahara) or a learning management system (such as blackboard – teachers, professors, mentors use within universities for their students in select classes). Although blogs can also be used for multiple purposes, e portfolios can permit varying degrees of audience access and create multiple views for different reasons (Epp & McKee, 2010). An ePortfolio can also be used as a tool for ongoing involvement. An individual is able to maintain their ePortfolio over a period of time and reflect on the work and experiences they have gained over that period. From personal experience, the researcher believed that ePortfolios are more of a learning tool in an interactive (in some cases confidential) way, compared to blogs which are open to anyone and for everyone to see.

ePortfolios in professional settings

Despite the substantial literature on ePortfolios in academic settings, the literature on using ePortfolios in professional settings is considerably smaller. It was found that ePortfolios

were most commonly found in healthcare, schools, higher education, therapy groups, and continuation of development in businesses (Herbert, Thibeault, Beaudoin, Tremblay, Seguin & Zamor, 2010). There was a pattern in use of certain ePortfolios in different domains. For example, many of the educational and healthcare settings used ePortfolio programs such as Mahara, Desire2learn, Foliotek, and Rcampus. An example of such in an educational setting was a study was done in 2009 in New Zealand. The Faculty of Applied Humanities, supported by a teaching and learning grant, used ePortfolios in three of the Faculty's undergraduate programs. The grants funded creation of Mahara, a free globally-used ePortfolio program. To introduce the program, there were workshops available for lecturers, as well further assistance from the faculty's "flexible learning adviser" (Gerbic, Lewis, Northover, 2009). The teachers introduced Mahara through a video tutorial on Mahara's own website. That way, students were able to refresh themselves on how to use the program at home if needed. The Mahara ePortfolio program was created by the government of New Zealand for users to maintain a virtual portfolio of their learning, goals, reflections and even as a social networking tool to interact with others. The data illustrated that the only challenge faced with the Mahara program was the introduction of this type of technology to the students. An overall result from using this program was a higher motivation level to participate in activities and an increase in score marks (Gerbic, Lewis, Northover, 2009). Wetzel & Strudler (2006) stated that over time, students will recognize the learning potential of e Portfolios, but it will take time as the individuals will have to become confident in the technology. Gerbic et al (2009) believe that this will only happen when more longitudinal research is done to better help students to begin to integrate ePortfolios as a routine in their learning landscape (Gerbic et al, 2009).

ePortfolios are also used in a healthcare setting, as discussed in a recent a study by Susan Peacock, Sue Murray and Alison Scott (2011). Their research revealed the potential of using an ePortfolio program to provide feedback to nurses and other health care professionals. Peacock et al (2011) define feedback as “a highly complex, multi-dimensional, social phenomenon supporting learning as well as increasing reflective skills and helping students to prepare for their future beyond the academic environment” (p.33). Those in a healthcare setting improve cognitive, psychomotor, and affective skills (Peacock et al, 2011) throughout their studies, as well as continuing to develop their knowledge and experiences in a professional setting. With the use of ePortfolios, it was found that the individuals improved their communication with their mentors, receive the feedback they needed for their job performance, reflected, and use the theoretical practices they learned in their studies to the real world. The ability to receive all types of feedback (visual, textual, and audio) may be collected within the ePortfolio, which ultimately is used to enhance an individual’s reflection on their performance and how to improve it (Peacock et al, 2011). The findings from Peacock’s study reinforce the current study’s findings because it has been demonstrated that students learn best through diverse teaching methods and techniques. ePortfolios have the ability to provide all types of feedback (visual, textual and audio) which will help to better engage non-verbal and other learner profiles.

1.2 Theoretical framework

Social Ecological Theory

The social ecological theory was used as this study’s guiding theoretical framework. The social ecological theory describes the personal, social and physical environment that influence participation in recreational physical activity (Giles-Corti & Donovan, 2002; Giles-Corti, 2006),

as well as their associated barriers. Allison, Dwyer, Goldenberg and Fien (2005) define barriers as the obstacles faced in undertaking, maintaining or increasing physical activity. Their research has shown a number of barriers that exist for individuals who wish to engage in physical activity. Physical activity is not merely limited to personal barriers such as time and money, but may also be influenced by social barriers such as lack of social support (Brownell, Stunkard & Albaym, 1980; Blamey, Mutrie & Aitchison, 1995) or physical environment barriers such as lack of accessible facilities (Sallis, Hovell, Hostetter, Elder, Hackley, Caspersen & Powell, 1990). The accessibility of e portfolios allows for individuals who do not have daily access to a trainer and facility to continue to participate. It is also a means to enhance internal and external intrinsic motivation. Internal motivation refers to the consistency of psychological patterns (such as attitudes, values, and beliefs) that have help shaped ones motivation patterns while external motivation refers to the preference of family, individuals and environments that support and enable the individual (Langley & Knight, 1999). As such, individuals are focused on attitudes and environments that have positively influenced them in the past (Langley & Knight, 1999).

The social ecological theory pertains to physical environmental conditions as well. Factors such as supportive infrastructure, suitable programs and cost of facilities all influence ones level of physical activity. Further, facilities associated with where individuals work, live and play are important determinants of physical activity (Giles-Corti, 2006). The social ecological theory examines influences of individual, social environmental and physical environmental determinants of recreational physical activity. For the purpose of this thesis project, an emphasis was placed on social factors influencing the use of ePortfolio and the individual's level of physical activity. ePortfolios act as a means of social support tool because of the processes that ePortfolios have available. For example, an ePortfolio allows for an individual

to connect (friending), share (repost a peer's stories), listen (reading), and respond (commenting) (Barrett, 2009). It is important to remember that physical environments can be considered secondary to individual and social environmental factors (Giles-Corti, & Donovan, 2002). Giles-Corti & Donovan (2002) state that accessible facilities, whether or not they are used in this way, support and enhance the achievement of an individual's level of physical activity. In fact, e-portfolios could be used as a complimentary strategy to help influence individual and social environmental factors. In Giles-Corti & Donovan's (2002) study, the influence of individual and social environmental determinants outweigh the role of physical environmental determinants of exercising (2002). In other words, the support provided to the individuals helped increase levels of physical exercise more so than having a facility close by.

There are five main factors that influence individual's participation in physical activity including: personal investments (such as energy and effort), involvement alternatives (such as competing activities), satisfaction (such as rewards), social support and constraints (Wilson, Rodgers, Carpenter, Hall, Hardy & Fraser, 2004). The factors most relevant to this research project are social support and social constraints. Social support refers to the degree of perceived reinforcement received from other individuals. Social constraints, on the other hand, focus on the degree of pressure individuals perceive from others regarding their behaviour (Carpenter & Scanlan, 1998). These two factors are deemed more important than others because of the pull and influence they have on the individual. The other factors root from societal influences. In order to understand individuals' physical activity habits, Giles – Corti and Donovan (2002) suggest examining the relative individual and social environmental factors that influence the individual's physical activity behaviour. Thus, social support and constraints are affected not only by surrounding individuals, but also by the larger community and organizational levels

(Giles – Corti, 2006). Social support and constraints may appear in many different forms. In this study, the main support system we are looking at is the ePortfolio and how this application can offer potential support. Supportive family, friends and trainers, gym partners, facility accessibility, time and climate all influence one's involvement, all of which can be integrated into the reflection space of an e portfolio.

Qualitative methodology and methods

Few studies have examined the use of ePortfolios in a kinesiology domain. To address this gap in the literature, qualitative research was the chosen scientific research method due to the types of questions this research project addressed. Qualitative research was chosen because of its uniqueness of helping researchers understand people in their natural environments, as opposed to experimental, set up environments (Marchevsky, 2000). In the SAGE Handbook of Qualitative Research (2005), qualitative research was defined as the study of the empirical world from the viewpoint of the person under the study. Behaviour is influenced by the physical, psychological environment and sociocultural factors in an individual's life. Using qualitative research as a foundation in this study helped me understand where the participants were coming from, and gather insight into their perceptions and point of view. Qualitative research helped to flesh out socially specific data about the behaviours, values, opinions and social contexts (Mack et al, 2005) of the trainers that were interviewed. This project explored the potential of using ePortfolios in a kinesiology setting. To understand if they could be used in such a domain, underlying issues such as barriers to physical activity had to be explored. Qualitative research data methods can be implemented in a variety of ways including focus groups, interviews, participant observation etc. For the purpose of this thesis, semi structured interviews were used as the primary method of data collection. Semi structured interviews are considered less intrusive

to those being interviewed. It encourages two-way communication and makes a more sensitive topic less uncomfortable which in turn may allow for more truthful answers from the interviewee.

Semi Structured Interviews

Interviews were selected as the primary method of data collection. Interviews, whether structured or not, are often able to address the insightful “how” and “why” questions of human life while allowing for a deeper understanding of human behaviour and subjective realities (Mack, Woodson, MacQueen & Namey, 2005). By conducting interviews, qualitative researchers are able to contend with a richness of data that is extremely meaningful to both themselves and their participants. Interviews are ideal for collecting information about an individual’s perspective, personal history, and experiences (Mack et al, 2005). Mack et al. (2005) believe that interviews often give a “human face to research problems” (p.29) As such, the interview guide will be created to address such issues as experiences using the e portfolio, benefits, barriers, ways in which the individuals used the ePortfolios, accessibility etc. Eight personal trainers, men and women, from Sport Services at the University of Ottawa were recruited to participate in this study. This specific group was the chosen population of interest because all of them are current or former graduates of the Human Kinetics’ program at the University of Ottawa, and as such, were exposed to ePortfolios in two of their sport psychology courses in their undergraduate degree. Thus, they had some knowledge and familiarity with ePortfolios. It was decided to limit the number of participants in this study to eight because of the scope of the study. The number of participants in this study was compared to other studies such as Purnell and Lawton’ study that explored similar research questions using a similar number of

participants. The data collected started to have a pattern after six participants and eight further confirmed the emerging themes. The interviews lasted approximately one hour each which permitted sufficient time to gather information on the topic of ePortfolios and how trainers view them. The interviews were conducted in English, and took place on campus in the early months of 2013. The trainers went into depth throughout the interviews, explaining how they thought it could be an effective tool, what they would want included in the ePortfolio, potential area of concern to consider when designing the ePortfolio template, and how to customize or modify the template. Such examples of a question that was asked during the interview was: “Can you please explain your background and knowledge on e portfolios” or “Can you please explain your current method of tracking your clients progress and if any of your tools include e portfolio “like” software”. The interviews were semi structured in nature which entails the use of a pre-established interview guide as well as the capacity to adjust the questions if necessary. The semi structure interview is flexible and “responds to the direction in which the interviewees take the interview” (Bryman, Teevan & Bell, 2009, p.313).

Based on the participant’s preferences and availabilities, the interviews took place at a convenient time of the trainer in Montpetit. During the interview, an example of an e portfolio was shown to the trainers explaining how it can be used. The trainers were shown the general template and then ideas for one that could be modified for kinesiology settings. A comfortable setting for the interviewee maximized the participant’s sense of comfort and increased the opportunity for open dialogue regarding the subject matter. Additionally, the participants were briefed on the purpose of the study and given two sets of consent forms to read over and sign – one set which was returned to the researcher and the other for the participants` own purposes. These forms were available in English and French. The participants were told that the interview

will be audio recorded for transcription and analysis purposes. The final transcriptions were also returned to the participants by email to verify accuracy. Finally, the participants were verbally reminded that all their answers will remain strictly confidential and anonymous and that they had the ability to refuse to answer any questions and/or withdraw at any point. All interviews were audio recorded and transcribed verbatim. The interview transcripts were read through several times and important notes were indicated in the margins of each document that reflected observations made during the interviews. The transcripts are stored in a locked office of the supervising professor.

Prior to beginning the interviews, the researcher immersed themselves in the use of ePortfolios by using Mahara, and became familiar with the most commonly-used ePortfolio programs available to the public. Having this knowledge allowed me to better appreciate and anticipate my discussion on the use of ePortfolios and the various application components.

Chapter II

Personal trainers' perceived role in enhancing effective client reflection in their fitness journey:
description of eight Ottawa-area personal trainers' perspectives on the potential of using
ePortfolios in a client/PT relationship.

Tyanne Kamping

Abstract

This manuscript is part of a larger study looking at the potentials of ePortfolios in a kinesiology educational setting and professional practices. Eight Ottawa-area personal trainers were interviewed to gain insight into their perceptions on their diverse roles. It was discovered that personal trainers are hired for a number of reasons, including weight loss but also as a supportive role, someone to provide guidance, someone to help reach a specific performance goal, specifically to overcome barriers that individuals may perceive when attempting to participate in physical activity. Such barriers include time, level of commitment/lack of motivation, lack of confidence and transportation issues. As part of this study, eight personal trainers at the University of Ottawa were asked what they believed their role was in the gym and what barriers they came across when training their clients. After the perceived barriers were stated, the participants were asked how he/she helps their clients address and overcome these aforementioned barriers. Semi structured interviews took place in the early months of 2013 on the University of Ottawa's campus resulting in a variety of answers particularly on perceived barriers to physical activity. Having a better idea as to what is preventing people from regular participation in physical activity can help personal trainers cater their tools and strategies to foster deep learning and ongoing involvement, thus increasing their clients' likelihood of reaching desired goals and outcomes.

Key terms

To ensure consistency and clarity, a list of key terms and concepts used in this manuscript are defined.

Assessment: The evaluation of a topic or situation. It does not have to be graded, but the individual being assessed will use the feedback to improve one's self. For the purpose of this paper, ePortfolios were used as the instrument of assessment.

Barrier: A barrier can be referred to as something emotional or literal. A barrier can be something that interferes with someone completing a goal, objective or mission.

Client: The client is the individual who is on the receiving end of the personal trainers', directions. The client usually pays for the personal trainers' services to reach his/her personal goals relating to health, fitness, maintenance and reaching a generally increased wellbeing. Sessions can be once and awhile or on a regular schedule a few times a week for a few months. The individual trusts that the personal trainer they hire will help them reach their desired goals through dedication, commitment and advice.

Deep learning: "Deep learning involves paying attention to underlying meaning. It is associated with the use of analytic skills, cross-referencing, imaginative reconstruction and independent thinking" (Warburton, 2003, p.45). Deep learning is facilitated by the making of connections from other learning experiences that happen in several different contexts and environments (Tosh et al, 2006).

ePortfolio: “A system that allows users to record any events or thought that are personally significant. It allows the records to be linked by other data sources and allows the user to integrate present data with their personal data” (Lawton & Purnell, 2010, p.4)

Fitness journey: An individual’s path, mentally and physically to achieve their desired fitness goals. This could include weight loss; increase self-confidence, healthy living and overall stability and regularity in one’s life.

Human Kinetics setting: courses in a Human Kinetics program, (part of a professional kinesiology degree), learning environments where students are taught how to coach, be personal trainers, PE teachers, and also the practice of these professions. Although the words are not necessarily interchangeable, several terms are used in the literature and I have been consistent in using the terms that were used by others, i.e. H.K.

Outcomes: Is the way something turns out, or the consequence. It is the end product or result obtained following specific actions (Albert, 1998).

Personal trainer (PT): The main role for a personal trainer is to maintain, increase and support an individual to reach certain objectives in a fitness context... The trainer can work one on one or within a group to help a client reach their desired goals. The client looks to the trainer for expertise, knowledge, inspiration, and leadership to guide them through the process. The client trusts the personal trainer to help meet objectives related to health, appearance, self-esteem, quality of life and wellbeing (Abrahman, 2001).

Reflection: A mental process involving an individual to look back on an experience where knowledge was gained. The individual can reflect back on this experience and use the knowledge in present day or future situations.

2.1 Literature review

Perceived roles of personal trainers

It is important to understand the roles a personal trainer assumes to better understand how the personal trainer can help a client. Each client is different, and it is important for personal trainers to recognize and adapt their role to their specific client's needs. People seek personal trainers for multiple reasons and this study looks at the multiple reasons personal trainers believe they are hired. The content of sessions tends to vary from trainer to trainer and specifically client, to client (Gavin, 1996). In a study done by Gavin (1996) on the explanations as to why personal trainers are hired, there was an extensive list of reasons that included: weight management, improving physical health, lifestyle improvements, improving self-esteem, improving athletic performance and most importantly in terms of this study, meeting social needs. Gavin's (1996) study summarized personal trainer's roles as one that for the most part lies in the physical aspects of their clients, but also indicates a strong reinforcement to encourage an increase in healthier lifestyles and improvement in psychological health and self-esteem for their clients.

Depending on the client, the trainer needs to adapt their role in ways to reach their client's desired goals and outcomes. For the purpose of this study, ePortfolios were explored as a supportive tool used by trainers to help their clients throughout their fitness journey. Researchers in the field of effective pedagogy consider that reflection is an idea tool to assist in the facilitation of learning (Rossi, Magonler & Giannandrea, 2008). ePortfolios allow for individuals to reflect on their learning and experiences, and guide them through the various necessary

learning stages. The individual recognizes their own perspectives as a result of learning from an array of informal and informal contexts. Through his/her reflection in the ePortfolio, one creates a personal perspective which can be debated with others personal points of views (Rossi et al, 2008). Being able to recognize personal perspectives, and personal experiences, one may also use this as a tool to overcome specific barriers. Using softwares such as an ePortfolio to address and overcome barriers to physical activity could help the individual create routine and confidence, as well as increase their level in physical activity.

Barriers personal trainers address and overcome

Understanding common barriers to physical activity and creating tools and strategies to overcome the barriers may help individuals make physical activity part of their daily routine. As part of a personal trainer's supportive role in a client's life, it is up to the trainer to recognize these barriers. Barriers to physical activity are and not limited to: do not have time to exercise, find it inconvenient to exercise, lack of self-motivation, lack of confidence, lack of support and encouragement.

ePortfolios are used in a diverse range of professional settings. Despite the substantial literature on ePortfolios in academic settings, the literature on using ePortfolios in professional settings is considerably smaller. It was found that ePortfolios were most commonly found in healthcare, schools, higher education, therapy groups, and continuation of development in businesses. There was a pattern in use of certain ePortfolios in different domains. For example, many of the educational and healthcare settings used ePortfolio programs such as Mahara, Desire2learn, Foliotek, and Rcampus. An example of such in an educational setting was a study conducted in 2009 in New Zealand. The Faculty of Applied Humanities, supported by a teaching

and learning grant, used ePortfolios in three of the Faculty's undergraduate programs. The grants funded the creation of Mahara, a free globally-used ePortfolio program. To introduce the program, there were workshops available for lecturers, as well further assistance from the faculty's "flexible learning adviser" (Gerbic, Lewis, Northover, 2009). The teachers introduced Mahara through a video tutorial on Mahara's own website. That way, students were able to refresh themselves on how to use the program at home if needed. The Mahara ePortfolio program was created by the government of New Zealand for users to maintain a virtual portfolio of their learning, goals, reflections and even as a social networking tool to interact with others. The data illustrated that the only challenge faced with the Mahara program was the introduction of this type of technology to the students. An overall result from using this program was a higher motivation level to participate in activities and an increase in score marks (Gerbic, Lewis, Northover, 2009). Wetzel & Strudler (2006) stated that over time, students will recognize the learning potential of ePortfolios, but it will take time as the individuals will have to become confident in the technology. Gerbic et al (2009) believe that this will only happen when more longitudinal research is done to better help students to begin to integrate ePortfolios as a routine in their learning landscape (Gerbic et al, 2009).

ePortfolios are also used in a healthcare setting, as discussed in a recent a study by Susan Peacock, Sue Murray and Alison Scott (2011). Their research revealed the potential of using an ePortfolio program to provide feedback to nurses and other health care professionals. Peacock et al (2011) define feedback as "a highly complex, multi-dimensional, social phenomenon supporting learning as well as increasing reflective skills and helping students to prepare for their future beyond the academic environment" (p.33). Those in a healthcare setting improve cognitive, psychomotor, and affective skills (Peacock et al, 2011) throughout their studies, as

well as continuing to develop their knowledge and experiences in a professional setting. With the use of ePortfolios, it was found that the individuals improved their communication with their mentors, receive the feedback they needed for their job performance, reflected, and use the theoretical practices they learned in their studies to the real world. The ability to receive all types of feedback (visual, textual, and audio) may be collected within the ePortfolio, which ultimately is used to enhance an individual's reflection on their performance and how to improve it. (Peacock et al, 2011). The findings from Peacock's study reinforce this study's objectives because it has been demonstrated that students learn best through diverse teaching methods and techniques. ePortfolios have the ability to provide all types of feedback (visual, textual and audio) which will help to better engagement, nonverbal and other learner profiles.

2.2 Theoretical framework

Social Ecological Theory

The social ecological theory was used as this study's guiding theoretical framework. The social ecological theory describes the personal, social and physical environment that influence participation in recreational physical activity (Giles-Corti & Donovan, 2002; Giles-Corti, 2006), as well as their associated barriers. Allison, Dwyer, Goldenberg and Fien (2005) define barriers as the obstacles faced in undertaking, maintaining or increasing physical activity. Their research has shown a number of barriers that exist for individuals who wish to engage in physical activity. Physical activity is not merely limited to personal barriers such as time and money, but may also be influenced by social barriers such as lack of social support (Brownell, Stunkard & Albaym, 1980; Blamey, Mutrie & Aitchison, 1995) or physical environment barriers such as lack of accessible facilities (Sallis, Hovell, Hostetter, Elder, Hackley, Caspersen & Powell, 1990). The

accessibility of e portfolios allows for individuals who do not have daily access to a trainer and facility to continue to participate. It is also a means to enhance internal and external intrinsic motivation. Internal motivation refers to the consistency of psychological patterns (such as attitudes, values, and beliefs) that have help shaped ones motivation patterns while external motivation refers to the preference of family, individuals and environments that support and enable the individual (Langley & Knight, 1999). As such, individuals are focused on attitudes and environments that have positively influenced them in the past (Langley & Knight, 1999).

The social ecological theory pertains to physical environmental conditions as well. Factors such as supportive infrastructure, suitable programs and cost of facilities all influence ones level of physical activity. Further, facilities associated with where individuals work, live and play are important determinants of physical activity (Giles-Corti, 2006). The social ecological theory examines influences of individual, social environmental and physical environmental determinants of recreational physical activity. For the purpose of this thesis project, an emphasis was placed on social factors influencing the use of ePortfolio and the individual's level of physical activity. ePortfolios act as a means of social support tool because of the processes that ePortfolios have available. For example, an ePortfolio allows for an individual to connect (friending), share (repost a peer's stories), listen (reading), and respond (commenting) (Barrett, 2009). It is important to remember that physical environments can be considered secondary to individual and social environmental factors (Giles-Corti, & Donovan, 2002). Giles-Corti & Donovan (2002) state that accessible facilities, whether or not they are used in this way, support and enhance the achievement of an individual's level of physical activity. In fact, e portfolios could be used as a complimentary strategy to help influence individual and social environmental factors. In Giles-Corti & Donovan's (2002) study, the influence of individual and

social environmental determinants outweigh the role of physical environmental determinants of exercising (2002). In other words, the support provided to the individuals helped increase levels of physical exercise more so than having a facility close by.

There are five main factors that influence individual's participation in physical activity including: personal investments (such as energy and effort), involvement alternatives (such as competing activities), satisfaction (such as rewards), social support and constraints (Wilson, Rodgers, Carpenter, Hall, Hardy & Fraser, 2004). The factors most relevant to this research project are social support and social constraints. Social support refers to the degree of perceived reinforcement received from other individuals. Social constraints, on the other hand, focus on the degree of pressure individuals perceive from others regarding their behaviour (Carpenter & Scanlan, 1998). These two factors are deemed more important than others because of the pull and influence they have on the individual. The other factors root from societal influences. In order to understand individuals' physical activity habits, Giles – Corti and Donovan (2002) suggest examining the relative individual and social environmental factors that influence the individual's physical activity behaviour. Thus, social support and constraints are affected not only by surrounding individuals, but also by the larger community and organizational levels (Giles – Corti, 2006). Social support and constraints may appear in many different forms. In this study, the main support system we are looking at is the ePortfolio and how this application can offer potential support. Supportive family, friends and trainers, gym partners, facility accessibility, time and climate all influence one's involvement, all of which can be integrated into the reflection space of an e portfolio.

Qualitative methodology and methods

Few studies have examined the use of ePortfolios in a kinesiology domain. To address this gap in the literature, qualitative research was the chosen scientific research method due to the types of questions this research project addressed. Qualitative research was chosen because of its uniqueness of helping researchers understand people in their natural environments, as opposed to experimental, set up environments (Marchevsky, 2000). In the SAGE Handbook of Qualitative Research (2005), qualitative research was defined as the study of the empirical world from the viewpoint of the person under the study. Behaviour is influenced by the physical, psychological environment and sociocultural factors in an individual's life. Using qualitative research as a foundation in this study helped me understand where the participants were coming from, and gather insight into their perceptions and point of view. Qualitative research helped to flesh out socially specific data about the behaviours, values, opinions and social contexts (Mack et al, 2005) of the trainers that were interviewed. This project explored the potential of using ePortfolios in a kinesiology setting. To understand if they could be used in such a domain, underlying issues such as barriers to physical activity had to be explored. Qualitative research data methods can be implemented in a variety of ways including focus groups, interviews, participant observation etc. For the purpose of this thesis, semi structured interviews were used as the primary method of data collection. Semi structured interviews are considered less intrusive to those being interviewed. It encourages two-way communication and makes a more sensitive topic less uncomfortable which in turn may allow for more truthful answers from the interviewee.

Semi Structured Interviews

Interviews were selected as the primary method of data collection. Interviews, whether structured or not, are often able to address the insightful “how” and “why” questions of human life while allowing for a deeper understanding of human behaviour and subjective realities (Mack, Woodson, MacQueen & Namey, 2005). By conducting interviews, qualitative researchers are able to contend with a richness of data that is extremely meaningful to both themselves and their participants. Interviews are ideal for collecting information about an individual’s perspective, personal history, and experiences (Mack et al, 2005). Mack et al. (2005) believe that interviews often give a “human face to research problems” (p.29) As such, the interview guide will be created to address such issues as experiences using the e portfolio, benefits, barriers, ways in which the individuals used the ePortfolios, accessibility etc. Eight personal trainers, men and women, from Sport Services at the University of Ottawa were recruited to participate in this study. This specific group was the chosen population of interest because all of them are current or former graduates of the Human Kinetics’ program at the University of Ottawa, and as such, were exposed to ePortfolios in two of their sport psychology courses in their undergraduate degree. Thus, they had some knowledge and familiarity with ePortfolios. It was decided to limit the number of participants in this study to eight because of the scope of the study. The number of participants in this study was compared to other studies such as Purnell and Lawton’ study that explored similar research questions using a similar number of participants. The data collected started to have a pattern after six participants and eight further confirmed the emerging themes. The interviews lasted approximately one hour each which permitted sufficient time to gather information on the topic of ePortfolios and how trainers view

them. The interviews were conducted in English, and took place on campus in the early months of 2013. The trainers went into depth throughout the interviews, explaining how they thought it could be an effective tool, what they would want included in the ePortfolio, potential area of concern to consider when designing the ePortfolio template, and how to customize or modify the template. Such examples of a question that was asked during the interview was: “Can you please explain your background and knowledge on e portfolios” or “Can you please explain your current method of tracking your clients progress and if any of your tools include e portfolio “like” software”. The interviews were semi structured in nature which entails the use of a pre-established interview guide as well as the capacity to adjust the questions if necessary. The semi structure interview is flexible and “responds to the direction in which the interviewees take the interview” (Bryman, Teevan & Bell, 2009, p.313).

Based on the participant’s preferences and availabilities, the interviews took place at a convenient time of the trainer in Montpetit. During the interview, an example of an e portfolio was shown to the trainers explaining how it can be used. The trainers were shown the general template and then ideas for one that could be modified for kinesiology settings. A comfortable setting for the interviewee maximized the participant’s sense of comfort and increased the opportunity for open dialogue regarding the subject matter. Additionally, the participants were briefed on the purpose of the study and given two sets of consent forms to read over and sign – one set which was returned to the researcher and the other for the participants` own purposes. These forms were available in English and French. The participants were told that the interview will be audio recorded for transcription and analysis purposes. The final transcriptions were also returned to the participants by email to verify accuracy. Finally, the participants were verbally reminded that all their answers will remain strictly confidential and anonymous and that they had

the ability to refuse to answer any questions and/or withdraw at any point. All interviews were audio recorded and transcribed verbatim. The interview transcripts were read through several times and important notes were indicated in the margins of each document that reflected observations made during the interviews. The transcripts are stored in a locked office of the supervising professor.

Prior to beginning the interviews, the researcher immersed themselves in the use of ePortfolios by using Mahara, and became familiar with the most commonly-used ePortfolio programs available to the public. Having this knowledge allowed me to better appreciate and anticipate my discussion on the use of ePortfolios and the various application components.

2.3 Data Analysis

For all eight interviews, the same data analysis method was used. The interviews were recorded and transcribed, analyzed and coded manually to generate overarching themes. After the objectives were drawn, important quotes were selected based on the major themes generated. The guiding research objectives included understanding the roles of personal trainers, perceived barriers to physical activity and the use of ePortfolios in a kinesiology setting. Within those objectives, major themes were discovered in my research findings. These included: 1) roles of personal trainers, 2) helping attain performance goals (improve sport; gain muscle, lose weight), 3) general support for health and well-being; and 4) accountability and strategies to overcome barriers (general, audio/visual and written), and 5) e portfolios in a Human Kinetics setting. Themes were removed, added and evolved through the analytical process. Many themes became repetitive and could be collapsed into smaller themes. The role of a personal trainer was narrowed down to general support and performance support. Several subthemes were collapsed

and discussed within the broader theme. These included: improving one's health, giving guidance, client's reaching specific goals, weight loss, muscle building, accountability, social reasons, maintaining health, creating routine, rehabilitation, general guidance, and performance roles. Barriers to physical activity included sub-themes such as tools and strategies to overcome the perceived barriers. Some of the subthemes included: look at previous experiences, critically examine experiences, memories and use in a situation, mental tools, reflection tools – log books, video tapes, “coach my video”, feedback after every session, picture before and after and written programs. Finally, the research questions that concerned the second objective of understanding ePortfolios resulted in three (3) major themes– whether or not the trainers think ePortfolios can be used within a kinesiology setting, the personal trainers' ideal perception of what a ePortfolio in that domain would resemble, and the actual application of the ePortfolio. There were several themes identified within this objective including: opens doors of communication, gives opportunity for feedback, accessible, keeps track of progress, improves motivation, video tracking, written log books, photos, substitutes for missed sessions, planned exercises, video filing transferring, etc. As many of these subthemes overlapped, three main themes were established based on the regularity of occurrence during the interviews and the importance to the literature on the topic. The subthemes were categories under the overarching three main themes. The manually transcribed interviews were sent back to the participants through email for review. None of the interviewees had any suggested changes.

2.4 Findings

The findings in this manuscript are organized by the dominant themes that were manually identified in the data analysis. Three guiding research questions that are discussed by the trainers include the perceived roles of personal trainers, personal trainer's perceptions on barriers to

physical activity, and the tools and strategies personal trainers use to overcome these mentioned barriers.

Role of personal trainer

It was suggested by the participants that the role of a personal trainer was not just for reasons of weight loss, but for other reasons as well such as a supportive role – social and health reasons but also reaching a client’s goals (improving one’s health and giving guidance). Table 1 shows direct quotes taken from the interviews conducted with the personal trainers at the University of Ottawa’s Sport Services. The following quotations are the trainer’s opinions on their perceived roles with clients.

Table 1. Perceived roles of personal trainers (trainer’s view)

Themes:

1 General support for health and well-being; and accountability

2. Performance goals (improve sport; gain muscle, lose weight)

Theme	Evidence - citation
General support	“A personal trainer is obviously someone who tries to help another individual reach a certain personal goal whether it is losing weight, whether it is muscle building, whether it is strength condition or performance outcomes. A personal trainer is also someone who is a mentor for that domain. Someone who is fit and already athletically blessed might hire a trainer just for support and monitoring” (PT 1)

General Support	“A personal trainer is someone who helps another achieve personal goals involving physical fitness and wellbeing” (PT 2)
General Support	“He/she is someone’s personal assistant in the gym setting, giving them guidance, advice and direction in order to reach their fitness goals” (PT 3)
General Support	“I believe a personal trainer is someone who deals with improving the health and performance aspect of some one’s life” (PT 4)
General Support	“A certified individual who helps you reach your fitness needs and goals. It can be one on one or with a group, helping you reach a weight goal, a strength goal or for some a performance goal” (PT 5)
Performance Goals	“Every client is different and has their own personal reasons for hiring me. However, on average, I would say the main reasons are 1. Health related (weight loss/mass gain) 2. Accountability, having to meet someone, pays them, it makes you accountable. 3. The social aspect, my clients really open up to me about their life, issues, problems, etc. They look to me for advice/guidance, or to just get stuff off their chest” (PT 3)
Performance Goals	“For my particular group of soccer players they train with me for performance based reasons and results. Secondary to that, they maybe receive some sort of weight loss, maybe some muscle building, but primarily performance based. One of my other clients is strictly looking to lose weight. The other is trying to maintain and develop his muscle strength and trying to tone” (PT 4)

After asking the participants their perception on the roles of a personal trainer, it was clear that there were multiple roles that focused on more than helping a client lose weight. In general, it could be summarized that all participants believed personal trainers’ main contributions relate to two areas. This included giving general support for the health and wellbeing of the individual by also encouraging accountability. It was also discovered that a

personal trainer's role was to help clients to attain performance goals such as improving the individuals sport performance, to gain muscle and or lose weight. .

Personal trainer 5 states that the role of a personal trainer is strictly fitness related “a certified individual who helps you reach your fitness needs and goals. It can be one on one or with a group, helping you reach a weight goal, a strength goal or for some a performance goal”. Most of the trainers mentioned weight loss initially as the number one reason a trainer is hired. Several of the trainers also believed there were other reasons for being hired as a personal trainer. Personal trainer number 1 explains that PT's are hired to help their client reach a goal; “A personal trainer is obviously someone who tries to help another individual reach a certain personal goal whether it be losing weight, whether it be muscle building, whether it be strength condition or performance outcomes. A personal trainer is also someone who is a mentor for that domain. Someone who is fit and already athletically blessed might hire a trainer just for support and monitoring” (PT 1). Although PT 3 agrees with what PT 1 had to say, PT 3 also comments on the importance of a PT's role for other reasons “every client is different and has their own personal reasons for hiring me. However, on average, the main reasons discovered are 1. health related (weight loss/mass gain) 2. accountability, having to meet someone, pay them, it makes you accountable. 3. the social aspect, my clients really open up to me about their life, issues, problems, etc. They look to me for advice/guidance, or to just get stuff off their chest”. It is not to say that client's do not hire personal trainers any more for weight loss, because that is not true – many of the participants in this study seemed to have at least one or two clients that were interested in weight loss, but were also hiring the trainers for their expertise and guidance beyond weight loss. For example, one interviewee notes “For the majority of them it was definitely weight loss and muscle strength that they wanted to work on... I know they also saw it as a

social get together sometimes too. All my clients were really outgoing and had a lot to say – whether it be about the work out, or how their week was going” (PT 1)

It is important for a personal trainer to have a solid understanding of what his/her client is expecting from them when he/she comes to their session. Understanding that the client might want more than just a workout routine from their personal trainer will increase the likelihood of reflection and ongoing involvement from the client. A trainer can insist on more than the client just working out at their gym sessions. If an ePortfolio is introduced into the training regime, the trainer can encourage the client to make daily entries, comment on their gym sessions, take pictures of their progress, all while unconsciously participating in reflection. People tend to remember experiences that are positively or negatively intense.(Entwistle, 2000) Having someone such as a personal trainer congratulate the client and give positive recognition can be characteristics that help a client reach their goal.

For the purpose of this study, the social aspect of the social ecological theory was emphasized. Giles-Corti & Donovan (2002) state that it is important to remember that physical environments can be considered secondary to an individual and social environmental factors. If the personal trainer realizes that the client is there to work with the personal trainers a social tool, someone to talk to, someone to open up to, the personal trainer can maximize their time together based on the level of support and accessibility they can provide. Understanding their role in the client’s life, a personal trainer can then further try to understand the specific barriers the client faces and help to address them.

Perceived barriers to physical activity

The social ecological theory describes the personal, social and physical environment that influences participation in recreational activity (Giles-Corti & Donovan, 2002; Giles-Corti, 2006)

as well as the associated barriers. There is significant research that explores the multiple barriers individuals may face when trying to participate in recreational physical activity. Research by Blamey, Mutrie & Aitchison (1995) state that physical activity is not merely limited to personal barriers (i.e. time) but also may be influenced by social barriers such as a lack of social support. The participants in this study were asked what they believed were barriers to physical activity based on the clients they train. For the purpose of this study, social barriers will be highlighted, in turn, emphasising the social benefits of ePortfolios. The accessibility of e portfolios allows for clients who cannot make it to a gym or meet with their trainer during their regular session the chance to still participate. Creating an ePortfolio for a client could eliminate perceived barriers such as price, travel, accessibility, and lack of support by adopting a reflective tool that is free, accessible and allowing for open communication between the client and trainer.

The following table are perceived barriers that the participants in this study believe keep individuals from participating in regular physical activity.

Table 2. Perceived barriers to physical activity

Barrier	Evidence - citation
Time	“Self-confidence issues, goal setting issues, commitment issues, time management issues, etc.” (PT 3)
Level of commitment	“I’ve seen many different reasons throughout all the clients I’ve had. It all really depends on the client. There are some that you know are being forced to go to sessions with you and they come up with every excuse in the book not to come... like I’m sick, which fair enough people get sick, umm.. school, which fair enough, school is a priority... but after a while... if it’s week after week... that you can’t make it... maybe just drop one thing... like training so you’re not wasting either of our time... things like that.. There are genuine reasons as well such as work reasons, family emergencies and personal injuries. Those I can all understand”(PT5)
Self confidence in Gym	“One, I thinks it’s a confidence thing, sometimes people may have an issue with the setting. Having multiple people in the

setting	gym at one time, seeing people do things that they can't do at the moment but they want to ...I find that some times for women, they have a hard time in a co-ed setting. They much prefer to be with other women...I think that might be a barrier. They don't want to be judge by other people, simply of their looks, or if they can't use a machine or do a certain exercise. I'm sure there are a ton other reasons why people don't go to the gym like depending on where the gym is relative to where they work or live. If the gym sessions are at awkward times, but must people would change their sessions if it meant they would be missing sessions with their trainers" (PT 3)
Transportation	"Things happen, and we reschedule. There was one client who was always late because she had to bus. The bus either was way too early or way too late... cramped our training sessions because we usually had to cut it short because I had another client right after" (PT 5)
Lack of motivation/commitment...this could be linked with lack of commitment	"I think it's all mental, for some reason they don't put it as a priority then it's easy to lose motivation, I think motivation is definitely key. There is definitely other reasons, each person is different...I think others many suffer from intimidation in some situations – like at the gym for instance, if they don't know how to do or use something they may feel as though people are watching them and judging them. Laziness is something that effects people, but I guess that goes in hand with motivation. Other things I think that detour people from doing physical activity would be things like transportation, accessibility to the gym"(PT 2)

Findings from this question provide insight into some personal trainers' perceptions as to some of the major barriers to regular physical activity. My research findings reveal that the main barriers are time, family emergencies, self-confidence, transportation, and lack of motivation. "Time" turned into a very broad category as there were many issues when it came to the clients participating in physical activity and "time". For one interviewee, self-confidence issues, goal setting issues, commitment issues, and time management issues intersected to create multiple barriers (PT 3). Hiring a personal trainer can eliminate the problem of time management. If someone pays to have a trainer on a regular basis at the same gym, every week, it gives the client accountability. The client will feel obligated to put time aside for their session, show up on time,

and put the effort in because he/she has paid good money for the trainer to be there. This can also be considered implicit in the barrier of lack of motivation. Motivation is key when participating in physical activity. Personal trainer 2 commented on a lack of motivation and level of participation in physical activity, “I think it’s all mental, so if for some reason the client doesn’t put it as a priority then it’s easy to lose motivation, I think motivation is definitely key...Laziness is something that effects people and in this case, their health, but I guess that goes in hand with motivation”. To continue, if a person does not go to the gym on a regular basis, he/she might not know how to use all the equipment available which in turn could be intimidating for the individual. Personal trainer 4 said “I think it’s a confidence thing, sometimes people may have an issue with the setting. Having multiple people in the gym at one time, seeing people do things that they can’t do.... but they want to. I find that sometimes for women, they have a hard time in a co-ed setting, they much prefer to be with other women, so yah I think that might be a barrier. They don’t want to be judged by other people...if they can’t use a machine or do a certain exercise...” Personal trainer 1 thinks it could be a combination of both lack of motivation and lack of confidence, “personal barriers? I’d say lack of motivation?... yah motivation, intimidation... laziness, busy schedules, maybe even a poor relationship between client and personal trainer.. weather.. I know if it’s crappy outside no one wants to make the move to the gym... that’s under motivation though... confidence is another one that I know some people lack and it might deter them from going to the gym”.

Having a support system in place, such as an e portfolio, may help the client feel more welcome in the gym setting. Such software like an ePortfolio, allows for the client to have constant support no matter where they are. Applications on their phones or I pods serve as continuous support with images and or voice support to encourage and remind the clients to

make appointments and meet exercise goals. Whether the client uses their personal trainer as someone to talk to, or having some kind of forum to vent on afterwards, such as an e portfolio, having the support system in place (trainers, e portfolios, time, etc.) can increase an individual's physical activity participation level. These findings reflect the research in the literature. In a study by Dwyer, Allison, Goldenberg, Yoshida, & Boutilier (2006) barriers to physical activity are not limited to the lack of time and money but also the amount of social barriers, such as lack of social support. Personal trainers need to come up with ways to be available for the clients outside of their gym sessions without physically being there all the time. The existing support needs to be in place for the client if they have questions outside of the gym. An ePortfolio can be a forum for the client to post any questions, comments and or pictures on what they are thinking. All of these barriers can be discussed on an ePortfolio allowing both the client and trainer to engage in and outside of gym sessions. ePortfolios can be used for communication, community building, venting, sharing and reading as a support tool outside of the time with their trainer. The social ecological theory argues that factors such as supportive infrastructure, suitable programs and cost of facilities all influences the level of physical activity. All of these factors are barriers individuals can face when trying to participate in physical activity. An ePortfolio can eliminate each of these issues. Trainers have to become creative when overcoming and addressing perceived barriers. The trainers need to understand client demographics and find meaningful ways to engage with them to establish The specific goals of the client and the amount of time the client has put aside to reaching his/her specific goal.

Overcoming perceived barriers is the first step to becoming more involved in physical activity. It is up to the trainer to come up with creative ways to incorporate these tools and strategies into their workout regime to make their client more motivated. Having access to an

ePortfolio may help increase the lack of motivation in a client by allowing the client to work on the ePortfolio at home, outside of gym sessions. The client can comment on how they feel their sessions went that week, what they are eating, if they are doing an extra physical activity, etc. Sherman (2006) stated that the most effective review activities are those that reflect what the individual has learned. That being said, the most useful strategy for the facilitation of learning is reflection (Rossi, Magonler & Giannandrea, 2008) and ePortfolios allow for just that. Table 3 summarizes the tools and strategies that the participants in this study use as ways to overcome and address perceived barriers to physical activity. As you will see, the majority of participants used some type of reflection tool in their sessions with their clients.

To make the most out of a training session, personal trainers need to understand why their clients are not making physical activity a daily routine and how to overcome the perceived barriers. The trainer needs to understand the barriers the clients face and come up with appropriate tools to address the issues. The findings from this thesis showed a number of ways that the trainers have tailored their training sessions to meet the needs of each of their clients. Having the basis of reflection as their primary tool, the personal trainers in this study used a variety of strategies to overcome the barriers such as general reflection (the client and trainers thoughts, suggestions, comments on general topics), audio/visual reflection (watching videos, seeing pictures, hearing play back tapes, etc.) and written reflection (log books, workout reports, etc.).

Table 3: Tools and strategies to address perceived barriers:**1: General reflection****2: Reflection – written (including log books)****3: Reflection – audio/visual**

Tool	Definition
General reflection	“Reflection is something I get my clients to use ... it’s a mental tool that an individual uses to look back on certain situations, experiences... even knowledge they have in a certain area and use it for different reasons... it could be to move forward and improve on something.. It could be to help others, it could be to expand on something... we usually use it to improve ourselves in the gym” (PT 1)
General reflection	“Being able to take a step back and analyze what you have done... why you have done it? What you got out of the experience” (PT 4)
General reflection	“I immediately think of self-reflection, I think about things that have occurred in the past, memories that I return to and perhaps use it in the future and present situation. It helps me improve something by learning from the past” (PT 5)
Reflection - written	” The only think I use is a tracking log book. So at the very beginning we make note of a starting weight, personal goals, trainer client goals, some of the clients want measurements taken.... The log book all really depends on what the client’s goals are from the beginning. I’m the only one that writes in it to keep it organized, but the client has full disclosure to it and can see what I’m writing...” (PT 1)
Reflection - written	“So I use a journal ... when I first meet with the client I asked their goals... what they want to accomplish when we train together... are there any details they need to tell me... we come up with almost a mock schedule.. we take a picture of them if they agree, at the beginning to see the progress from start to finish. Every session we log what the workout was, the amount of weight they did for each rep, how many reps and sets they do and things like that... we verbally talk about how they feel and what they expect to do during the week to maintain themselves until the next session. I don’t use anything electronic” (PT 5)
Reflection – audio/visual	“We do have someone from Queens University who videotaped a few of our training sessions and which allowed for the girls to see how they were doing certain exercises and if they were doing the exercises correctly – we also taped a few of their actually taped a few of their practices. Not only was it for us to give

	them feedback but it was also to let the girls reflect on their participation and let us know how they feel or think they can change. For my other two clients I only use like a log book and document their progress from start to finish – strength wise, weight wise...” (PT 4)
Reflection – audio/visual	I also like to use an app on my I pad called “Coach my video” it is a video analysis app that helps clients see what they are doing right/wrong during a given movement/exercise. It is a great teaching/feedback tool” (PT 3)
Reflection – audio/visual	“I track my client’s progress with programs as well as measurements, pictures and sometimes weight. I feel that scale weight can be a disadvantage as it doesn’t always tell the whole story. An individual might feel better, have clothes that fit better and be healthier but scale weight may have gone up. For this reason, I believe that multiple progress markers must be taken” (PT 5)
Reflection – audio/visual	“I keep workout booklets for most of my regular clients, to track their progress from week to week, and month to month. That way they can see the progress they are making and it helps motivate them to continue” (PT 3)

It was noted that there are many ways a trainer can address the daily barriers clients face when participating in physical activity. Several participants noted that they keep some kind of log book, whether it was a hard copy, or something electronic. No matter the type of log that was kept, there was some type of reflection that occurred. Reinforcing the key findings in my literature review, my findings indicate how reflection can be enhanced through the use of programs and tools that guide clients through various stages of thinking about and making sense of their experiences, and linking them to knowledge acquired in designated area of learning. For example, personal trainer 1 talks about the importance of reflection, and notes:

“reflection is something I get my clients to use ... it’s a mental tool that an individual uses to look back on certain situations, experiences... even knowledge they have in a certain area and use it for different reasons... it could be to move forward and improve on something... it could be to help others, it could be to expand on something.. We usually use it to improve ourselves in the gym” (PT 1)

Several interviewees spoke of the application of audio and visual tools in their training strategies. One personal trainer used a self-coaching video to visually illustrate a client's movement and form. "Coach my Video" shows each movement and will remind the client at each point where their body should be, how it should look and when to follow through.

Image 1 – "Coach my Video" as mentioned in the previous table – Coach my Video is an application used to analyze an athlete's movements and form.



Personal trainer 4 used coach my video with their client. The trainer felt it was beneficial because it was a video analysis application that not only helped the client see what they were doing wrong, but also what they client was doing right. Positive reinforcement is a great indicator of repetitive behaviour "It is a great teaching/feedback tool" (PT 3).

Some trainers mentioned using before and after photos to track the progress of their clients. Some clients enjoy this type of report because it physically shows the client where he/she started and where he/she are at that point. This type of tracking record is more for the physical aspect and weight loss purpose of hiring a trainer.

Image 2 – Before and after picture (<http://blog.goodlifefitness.com/tag/weight-loss/>)



All of the trainers in this study used some type of tracking record to watch the progress of their clients. Image 3 is an example as to what a workout log would look like. It keeps track of what exercise was done and how many reps and sets were completed. With time, a client can see their progress as to where he/she started and where he/she are. Personal trainer 5 explains the use of a before and after picture and using a log book, "... when I first meet with the client I asked their goals... what they want to accomplish when we train together... are there any details they need to tell me... we come up with almost a mock schedule.. we take a picture of them if they

agree, at the beginning to see the progress from start to finish. Every session we log what the workout was, the amount of weight they did for each rep, how many reps and sets they do and things like that... we verbally talk about how they feel and what they expect to do during the week to maintain themselves until the next session. I don't use anything electronic".

Image 3 – Written programs

Workout Log

Spreadsheet by www.SportsScience.co Name: _____

	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS
Date:	example 1	example 2				
Weight:						
Sleep:						
Warmup:						

Exercise	Weight & Reps	Weight & Reps	Weight & Reps	Weight & Reps	Weight & Reps	Weight & Reps
Upper						
Bench Press	40x12, 40x12, 40x9					
Bicep Curls	12.5x12, 12.5x10, 10x12					
Tricep Dips	9 reps, 7, 7					
Overhead Press	22x10, 20x10, 20x10					
Lat Pulldown	40x11, 40x10, 40x10					
Underhand Rows	60x12, 70x10, 70x8					
Abs	Mixed					
Lower						
Deadlift		50x5, 50x5, 45x7				
Leg Press		120x12, 120x12, 140x8				
Squat		25x8, 25x8, 25x8				
Leg Curl		40x12, 40x12, 40x9				
Calf Extension		60x12, 70x10, 70x8				
Abs		Mixed				

Notes: Lat technique improving. Dizzy after squats.

Conclusion

One of the goals of this thesis was to discuss the importance and roles of personal trainers in a client's life and explore potential for integrating ePortfolios within their training strategies. It was discovered that personal trainers are hired for a number of reasons, including weight loss but also as a supportive role, someone to provide guidance, someone to help reach a specific performance goal. Many examples were given from the participants in this study as to what they believe is their role in their clients' life. The majority of the participants believed they were hired

as a supportive role. The social ecological theory states that personal, social and physical environments influence participation levels in recreational physical activity (Giles-Corti & Donovan, 2002; Giles –Corti, 2006). For the purpose of this study, the social aspect was emphasized. The personal trainers in this study found that many of the clients they train hire a personal trainer as a social tool – someone to talk to, someone to vent to and someone to meet on a regular basis. The participants also found themselves giving guidance to their clients, whether it was fitness-related or advice on their general well-being. Through talking with their clients, the personal trainers learned many of the barriers that their clients face when trying to participate in physical activity on a daily basis. Key barriers that were discussed include time management, family emergencies, lack of motivation and general lack of support.

In conclusion, this article demonstrates that the eight personal trainers interviewed felt reflection tools provided social support for the clients to build on and to address these barriers. The trainers all had specific ways to incorporate reflection as a tool to address the barriers, whether writing in the form of a log book, or audio-visual methods. Other than using the hard copy of a log book, most of the trainers incorporated reflection computer-based applications such as Coach my Video, Fitness Pal, Calorie counter, etc. It is interesting to see the diversity in the methods, but all share similar features of an ePortfolio in that they are interactive and engaging. This is encouraging because it means that clients may be receptive to reflection tools like an ePortfolio. ePortfolios have the capability to help overcome many of the barriers that were discussed in my research interviews. An ePortfolio application is a free, accessible and easy way for the trainer and client to keep in touch, especially if the client cannot make it to a regular gym session. Since ePortfolios are used to compile information, reflect and assess an experience, (Tosh, Werdmuller, Chen, Light and Haywood, 2006) they allow the client to link their

experiences in the gym, to what happened outside of the gym, how they are feeling that day, what they eat, how much sleep they had to extra physical activity they are doing. They can apply their everyday experiences to their identified goal to think critically and reflect. It was stated in the literature review that a useful strategy for the facilitation of learning is through reflection (Rossi, Magonler & Giannandrea, 2008). Proven through the strategies and tools that the participants in this study use with their clients, it could be said that reflection is the number one tool that trainers should use to create accountability and results with their clients.

Further qualitative studies examining the roles of personal trainers and perceived barriers in physical activity should be explored so that future efforts can take into account their unique perspectives while trying to understand the perspective of the clients at a more hands on level. Not only should the perspective of both the trainer and the client be studied, but also taking into account client demographics and comfort level with phone and iPod applications. Incorporating innovative ways to keep individuals motivated in physical activity is an important step in the right direction.

The focus of this article was to discuss the roles personal trainers assume, the perceived barriers the participants come across as well as how the personal trainers address and overcome these barriers. The goal of this research project is to explore the potential of integrating ePortfolios in the reflection and assessment component between a personal trainer and their client. Our results demonstrate that personal trainers are hired for more than just motivation, but also provide expertise, support, and help setting and reaching performance and fitness goals (i.e. weight loss, performance goals, muscle building, creating accountability.). While ePortfolios are commonly found in an academic setting, other professional in health care are also known to use ePortfolios with their patients, clients or peers. The findings from my research suggest that

ePortfolios would be a relevant tool to be widely used in kinesiology settings such as with personal trainer and their clients. The following chapter will discuss personal trainers' perception on applicability of ePortfolios in kinesiology settings and the basis for an effective ePortfolio format and template.

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Chapter III:

Conceptualizing an effective ePortfolio format and template use in Kinesiology settings:
Perspectives from Eight Ottawa-area Personal Trainers

Tyanne Kamping

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Abstract

This article is part of a larger study on the views of using ePortfolios in a kinesiology/leisure setting. To consider the potential of using ePortfolios in a health-related setting, eight personal trainers who work with clients at the University of Ottawa were interviewed. I was focused on gaining insight into their views on the potential of ePortfolios in a kinesiology setting and their ideas on what an effective ePortfolio template would include. The participants were interviewed on their role as a trainer, the barriers he/she sees their clients encounter and the strategies and reflection tools the trainer use to address the barriers. The trainers took into account each individual client and came up with ways best fit to overcome these barriers while also helping their client reach their goal. The results provide insight into trainers and their clients as to whether or not ePortfolios work, what does not work and what is needed in creating a successful ePortfolio reflection tool.

Key terms

To ensure consistency and clarity, a list of several key terms and concepts used in this article are defined.

Assessment: The evaluation of a topic or situation. It does not have to be graded, but the individual being assessed will use the feedback to improve one's self. For the purpose of this paper, ePortfolios were used as the instrument of assessment.

Blog: A blog is a website, usually developed and maintained by an individual, who on a regular basis, adds text, commentaries, descriptions of events and other material such as graphics or videos (Epp & McKee, 2010).

Client: The client is the individual who is on the receiving end of the personal trainers', directions. The client usually pays for the personal trainers' services to reach his/her personal goals relating to health, fitness, maintenance and reaching a generally increased wellbeing. Sessions can be once and awhile or on a regular schedule a few times a week for a few months. The individual trusts that the personal trainer they hire will help them reach their desired goals through dedication, commitment and advice.

Deep learning: "Deep learning involves paying attention to underlying meaning. It is associated with the use of analytic skills, cross-referencing, imaginative reconstruction and independent thinking" (Warburton, 2003, p.45). Deep learning is facilitated by the making of connections from other learning experiences that happen in several different contexts and environments (Tosh et al, 2006). The goal of deep learning is to understand something and use the knowledge later on rather than to just pass an assigned task (Warburton, 2003).

ePortfolio: “A system that allows users to record any events or thought that are personally significant. It allows the records to be linked by other data sources and allows the user to integrate present data with their personal data” (Lawton & Purnell, 2010, p.4)

Kinesiology setting – (Kinesiology) is a study that focuses on different areas of physical activity movement. Kinesiology can be used in a number of different applications including physical education teacher, rehabilitation, as well as applications in the sport and exercise industries. (Hoffman, 2009). In this thesis, the terms ‘kinesiology setting’ ‘Human Kinetics setting and professional practice’ relate to the diverse set of learning activities that relate to movement expertise of coaches, physical education teachers and personal trainers.

Outcomes: Is the way something turns out, or the consequence. It is the end product or result obtained following specific actions (Albert, 1998).

Personal trainer (PT): A personal trainer is an individual who helps a client identify and work towards fitness-related goals. The trainer can work one on one or within a group to help a client reach their desired goals. The client looks to the trainer for expertise, knowledge, inspiration, and leadership to guide them through the process. The client trusts the personal trainer to help meet objectives related to health, appearance, self-esteem, quality of life and wellbeing (Abraham, 2001). For the purpose of this study, the term trainer and personal trainer will be used interchangeably.

Reflection: A mental process involving an individual to look back on an experience where knowledge was gained. The individual can reflect back on this experience and use the knowledge in present day or future situations.

3.1 Literature review

Sherman (2006) believes that the most effective review activities are those that reflect on what the individual has learned. The results of this study show that the majority of personal trainers use some type of reflection tool to help their client reach their desired outcome. ePortfolios allow students to collect their ideas, knowledge and experiences and virtually place these reflections into one place. We asked the personal trainers if they believed ePortfolios would be a successful tool in a kinesiology setting and their perception on an ideal ePortfolio template.

Reflection

A useful strategy for the facilitation of learning is reflection. Rossi, Magonler & Giannandrea (2008) argue that there are different reflection levels that are needed to occur. Student reflection can be enhanced through the use of programs and tools that guide them through various stages of thinking about and making sense of their experiences, and linking them to knowledge acquired in classroom curricula. Sherman (2006) believes that the most effective review activities are those that reflect on what the individual has learned. ePortfolios allow for individuals to reflect on their learning and experiences, and guide them through the various necessary stages. The ePortfolios will be semi-structured, in that there are mandatory categories that must be completed, but also has ample space for the individual to write their own information, thus providing the opportunity for him/her to self-evaluate and self-reflect. As such, an ePortfolio gives the opportunity to document their learning path and reflect upon doing it. Furthermore, the objectives that are obtained through ePortfolios include the reflection on experiences based on practices and theories and how they may relate. It also allows for critical

awareness and comparison with prior knowledge of the topic, acknowledging your personal skills and being able to transfer the competences to other domains, and recognizing areas of improvement and of possible development ideas (Rossi et al, 2008). The individual recognizes their own perspectives as a result of learning from an array of informal and informal contexts. Through his/her reflection in the ePortfolio, one creates a personal perspective which can be debated with others personal points of views (Rossi et al, 2008). ePortfolios can be used for communication, community building, and creation of free writings to support reflection. Rossi et al (2008) state that these types of “voluntary” actions signify an additional significance to the objectives and to the learning paths found in e portfolios (Rossi et al, 2008).

In sum, a good ePortfolio always includes the practices within the broad concept of metacognition, allowing students to reflect on their work and think about the progress in learning (Miller & Morgaine, 2009). Miller & Morgaine (2009) draw off the works of Bransford, Brown and Cocking (2000) when defining metacognition. Metacognition is defined by Bransford et al (2000) as an “internal conversation” that students have with themselves allowing themselves to understand and monitor their own work (Bransford et al, 2000). It is believed that by emphasizing metacognition it can improve student achievement by developing in students the skill to learn on their own (Miller & Morgaine, 2009). By using an ePortfolio, an increase in opportunities for metacognition will arise through reflections, which ultimately will help students reach their desired outcomes and foster skill development.

ePortfolio creation

Rossi et al (2008) argue there are at least 4 main guidelines that should be kept in mind when creating an e portfolio: the ePortfolio should have mandatory and voluntary activities, the

learning path is coherent with the reflection objectives and the experts provide support. These guidelines will allow for the individual to enter free text, and will encourage collaborative activities and allow for the interaction between theory, practice and perspectives (Rossi et al, 2008). Rossi et al (2008) argue that by having structured spaces within the mandatory activities will help guide reflection. For effective student engagement, an ePortfolio needs to have structured activities while allowing voluntary student-directed activities as well (Rossi et al, 2008). The ePortfolio needs to have an organic structure offering support for its application while also offering motivation (Rossi et al, 2008). Allowing students to enter their own text into the ePortfolio allows him/her to enter information that the evaluator may not have foreseen. The student can make connections, provide reflection and make comments. Lastly, setting up the ePortfolio's application in correlation to the targeted population's needs and desires is necessary to make it user-friendly. When deciding on an ePortfolio program, one needs to ensure it will sync with the students' available resources, is user friendly, compatible with other reflection programs being used (i.e., blogs, tumblr, etc.) and relatable to the context in which the ePortfolio is being used (Emmett, 2003).

It is important to understand the difference between blogs/new social media and e portfolios. While very similar, the minor details are what make the difference between the two. The term blog is actually a conjunction of the two terms web log (Epp and KcKee, 2010) continue to explain that a blog is a website, usually developed and maintained by an individual, who on a regular basis, adds text, commentaries, descriptions of events, and other material such as graphics or videos (Epp & McKee, 2010). Usually, the information displayed in the blogs give links to other blogs or websites allowing an outside individual to further their knowledge on the topic. A blog usually allows for an individual to leave comments as well (Epp & McKee, 2010).

ePortfolios can either be an open source (such as Mahara) or a learning management system (such as blackboard – teachers, professors, mentors use within universities for their students in select classes). Although blogs can also be used for multiple purposes, ePortfolios can permit varying degrees of audience access and create multiple views for different reasons (Epp & McKee, 2010). An ePortfolio can also be used as a tool for ongoing involvement. An individual is able to maintain their ePortfolio over a period of time and reflect on the work and experiences they have gained over that period. From personal experience, the researcher believed that ePortfolios are more of a learning tool in an interactive (in some cases confidential) way, compared to blogs which are open to anyone and for everyone to see.

3.2 Theoretical framework

Social Ecological Theory

The social ecological theory was used as this study's guiding theoretical framework. The social ecological theory describes the personal, social and physical environment that influence participation in recreational physical activity (Giles-Corti & Donovan, 2002; Giles-Corti, 2006), as well as their associated barriers. Allison, Dwyer, Goldenberg and Fien (2005) define barriers as the obstacles faced in undertaking, maintaining or increasing physical activity. Their research has shown a number of barriers that exist for individuals who wish to engage in physical activity. Physical activity is not merely limited to personal barriers such as time and money, but may also be influenced by social barriers such as lack of social support (Brownell, Stunkard & Albaym, 1980; Blamey, Mutrie & Aitchison, 1995) or physical environment barriers such as lack of accessible facilities (Sallis, Hovell, Hostetter, Elder, Hackley, Caspersen & Powell, 1990). The accessibility of e portfolios allows for individuals who do not have daily access to a trainer and

facility to continue to participate. It is also a means to enhance internal and external intrinsic motivation. Internal motivation refers to the consistency of psychological patterns (such as attitudes, values, and beliefs) that have help shaped ones motivation patterns while external motivation refers to the preference of family, individuals and environments that support and enable the individual (Langley & Knight, 1999). As such, individuals are focused on attitudes and environments that have positively influenced them in the past (Langley & Knight, 1999).

The social ecological theory pertains to physical environmental conditions as well. Factors such as supportive infrastructure, suitable programs and cost of facilities all influence ones level of physical activity. Further, facilities associated with where individuals work, live and play are important determinants of physical activity (Giles-Corti, 2006). The social ecological theory examines influences of individual, social environmental and physical environmental determinants of recreational physical activity. For the purpose of this thesis project, an emphasis was placed on social factors influencing the use of ePortfolio and the individual's level of physical activity. ePortfolios act as a means of social support tool because of the processes that ePortfolios have available. For example, an ePortfolio allows for an individual to connect (friending), share (repost a peer's stories), listen (reading), and respond (commenting) (Barrett, 2009). It is important to remember that physical environments can be considered secondary to individual and social environmental factors (Giles-Corti, & Donovan, 2002). Giles-Corti & Donovan (2002) state that accessible facilities, whether or not they are used in this way, support and enhance the achievement of an individual's level of physical activity. In fact, e portfolios could be used as a complimentary strategy to help influence individual and social environmental factors. In Giles-Corti & Donovan's (2002) study, the influence of individual and social environmental determinants outweigh the role of physical environmental determinants of

exercising (2002). In other words, the support provided to the individuals helped increase levels of physical exercise more so than having a facility close by.

There are five main factors that influence individual's participation in physical activity including: personal investments (such as energy and effort), involvement alternatives (such as competing activities), satisfaction (such as rewards), social support and constraints (Wilson, Rodgers, Carpenter, Hall, Hardy & Fraser, 2004). The factors most relevant to this research project are social support and social constraints. Social support refers to the degree of perceived reinforcement received from other individuals. Social constraints, on the other hand, focus on the degree of pressure individuals perceive from others regarding their behaviour (Carpenter & Scanlan, 1998). These two factors are deemed more important than others because of the pull and influence they have on the individual. The other factors root from societal influences. In order to understand individuals' physical activity habits, Giles – Corti and Donovan (2002) suggest examining the relative individual and social environmental factors that influence the individual's physical activity behaviour. Thus, social support and constraints are affected not only by surrounding individuals, but also by the larger community and organizational levels (Giles – Corti, 2006). Social support and constraints may appear in many different forms. In this study, the main support system we are looking at is the ePortfolio and how this application can offer potential support. Supportive family, friends and trainers, gym partners, facility accessibility, time and climate all influence one's involvement, all of which can be integrated into the reflection space of an e portfolio.

Qualitative methodology and methods

Few studies have examined the use of ePortfolios in a kinesiology domain. To address this gap in the literature, qualitative research was the chosen scientific research method due to the types of questions this research project addressed. Qualitative research was chosen because of its uniqueness of helping researchers understand people in their natural environments, as opposed to experimental, set up environments (Marchevsky, 2000). In the SAGE Handbook of Qualitative Research (2005), qualitative research was defined as the study of the empirical world from the viewpoint of the person under the study. Behaviour is influenced by the physical, psychological environment and sociocultural factors in an individual's life. Using qualitative research as a foundation in this study helped me understand where the participants were coming from, and gather insight into their perceptions and point of view. Qualitative research helped to flesh out socially specific data about the behaviours, values, opinions and social contexts (Mack et al, 2005) of the trainers that were interviewed. This project explored the potential of using ePortfolios in a kinesiology setting. To understand if they could be used in such a domain, underlying issues such as barriers to physical activity had to be explored. Qualitative research data methods can be implemented in a variety of ways including focus groups, interviews, participant observation etc. For the purpose of this thesis, semi structured interviews were used as the primary method of data collection. Semi structured interviews are considered less intrusive to those being interviewed. It encourages two-way communication and makes a more sensitive topic less uncomfortable which in turn may allow for more truthful answers from the interviewee.

Semi Structured Interviews

Interviews were selected as the primary method of data collection. Interviews, whether structured or not, are often able to address the insightful “how” and “why” questions of human life while allowing for a deeper understanding of human behaviour and subjective realities (Mack, Woodson, MacQueen & Namey, 2005). By conducting interviews, qualitative researchers are able to contend with a richness of data that is extremely meaningful to both themselves and their participants. Interviews are ideal for collecting information about an individual’s perspective, personal history, and experiences (Mack et al, 2005). Mack et al. (2005) believe that interviews often give a “human face to research problems” (p.29) As such, the interview guide will be created to address such issues as experiences using the e portfolio, benefits, barriers, ways in which the individuals used the ePortfolios, accessibility etc. Eight personal trainers, men and women, from Sport Services at the University of Ottawa were recruited to participate in this study. This specific group was the chosen population of interest because all of them are current or former graduates of the Human Kinetics’ program at the University of Ottawa, and as such, were exposed to ePortfolios in two of their sport psychology courses in their undergraduate degree. Thus, they had some knowledge and familiarity with ePortfolios. It was decided to limit the number of participants in this study to eight because of the scope of the study. The number of participants in this study was compared to other studies such as Purnell and Lawton’ study that explored similar research questions using a similar number of participants. The data collected started to have a pattern after six participants and eight further confirmed the emerging themes. The interviews lasted approximately one hour each which permitted sufficient time to gather information on the topic of ePortfolios and how trainers view them. The interviews were conducted in English, and took place on campus in the early months

of 2013. The trainers went into depth throughout the interviews, explaining how they thought it could be an effective tool, what they would want included in the ePortfolio, potential area of concern to consider when designing the ePortfolio template, and how to customize or modify the template. Such examples of a question that was asked during the interview was: “Can you please explain your background and knowledge on e portfolios” or “Can you please explain your current method of tracking your clients progress and if any of your tools include e portfolio “like” software”. The interviews were semi structured in nature which entails the use of a pre-established interview guide as well as the capacity to adjust the questions if necessary. The semi structure interview is flexible and “responds to the direction in which the interviewees take the interview” (Bryman, Teevan & Bell, 2009, p.313).

Based on the participant’s preferences and availabilities, the interviews took place at a convenient time of the trainer in Montpetit. During the interview, an example of an e portfolio was shown to the trainers explaining how it can be used. The trainers were shown the general template and then ideas for one that could be modified for kinesiology settings. A comfortable setting for the interviewee maximized the participant’s sense of comfort and increased the opportunity for open dialogue regarding the subject matter. Additionally, the participants were briefed on the purpose of the study and given two sets of consent forms to read over and sign – one set which was returned to the researcher and the other for the participants` own purposes. These forms were available in English and French. The participants were told that the interview will be audio recorded for transcription and analysis purposes. The final transcriptions were also returned to the participants by email to verify accuracy. Finally, the participants were verbally reminded that all their answers will remain strictly confidential and anonymous and that they had the ability to refuse to answer any questions and/or withdraw at any point. All interviews were

audio recorded and transcribed verbatim. The interview transcripts were read through several times and important notes were indicated in the margins of each document that reflected observations made during the interviews. The transcripts are stored in a locked office of the supervising professor.

Prior to beginning the interviews, the researcher immersed themselves in the use of ePortfolios by using Mahara, and became familiar with the most commonly-used ePortfolio programs available to the public. Having this knowledge allowed me to better appreciate and anticipate my discussion on the use of ePortfolios and the various application components.

3.3 Data Analysis

For all eight interviews, the same data analysis method was used. The interviews were recorded and transcribed, analyzed and coded manually to generate overarching themes. After the themes were determined, important quotes were selected based on the themes generated. Themes were removed, added and evolved through the analytical process. The themes were created based on the regularity of occurrence during the interviews and the importance to the literature on the topic. The guiding research questions addressed in this study were whether or not personal trainers believed ePortfolios could be used in a kinesiology setting, what the template would look like and how the actual application of the ePortfolio would be implemented. Within those objectives, major areas of discussion centered on the integration of ePortfolios, the ideal template of a kinesiology ePortfolio, potential to track weight, sleep, and include additional physical activities. Further discussion focused on the application of an ePortfolio, and issues on accessibility. Several trainers had divergent opinions as to what should be included in an ideal template, although most shared similar opinion as to when an ePortfolio should be introduced

into the trainer/client relationship. As many of these subthemes overlapped, three main themes were established based on the regularity of occurrence during the interviews and the importance to the literature on the topic. The subthemes were categories under the overarching three main themes. The manually transcribed interviews were sent back to the participants through email for review. None of the interviewees had any suggested changes.

3.4 Findings

The findings in this article are organized into the dominant themes that were manually identified in the data analysis. Participants were asked their thoughts on ePortfolio implementation in a kinesiology setting and their perception on an effective ePortfolio format and template. Throughout the interviews, some of the participants explained what they believed would be important to have in an e portfolio template based on a kinesiology setting and one that they could use with their clients. The participants were asked whether or not he/she believed an ePortfolio would be something that could be integrated into their everyday training regimes with clients and be beneficial. The participants then listed characteristics that they believed would be beneficial for both the trainer and the client in a kinesiology-based ePortfolio.

Table 1: Perception of ePortfolios**1. Application****2. Strengthen client/trainer relationships. Application – introduced at onset****3. Accessibility**

Themes	Evidence - citation
Application	“I’d want to introduce it from the beginning so the client would know what they are signing up...it seems like it would be effective in so many different ways...” (PT 1)
Application	“I think that it would only be appropriate to incorporate it at the beginning of a training session so the client knows what they are signing up for and doesn’t get more of a “work load” half way through the training sessions. Clients like to know what they are fully signing up for right from the get go so they can divide their time and effort appropriately around their already busy existing schedule. So right from day one. The personal trainer and client can agree on the conditions right from the get go...they would come up with some kind of routine where they both log in certain times a week – some days logging what they have eaten, some days logging how they feel.. .but also leaving room for the client to write what ever they want in it. Hopefully by then end of the final session, they can review it together and go over the progress – hopefully the client will keep logging in the e portfolio if it seemed to be a successful way of reflection and time put towards their goals” (PT 4)
Strengthen trainer/client relationships	“I think this could be an excellent tool to strengthen the connection and quality of service between the client and trainer. Some clients would make use of this more than others... but the option of using this would be a great asset to a trainer” (PT 3)
	“It be cool for the client and trainer to keep in touch too like um the

Strengthen trainer/client relationships	client can keep the trainer up dated and let them know how they are doing.. it's a cool idea" (PT 1)
Strengthen trainer/client relationships	"Yah I think it could most defiantly be used as a new way of keeping track of their clients progress... not necessarily just benefiting the trainer, but if there are mandatory updates the client needs to add to it, it creates routine so it is also a good tool for the client, because they can keep adding to it. The way trainers use our log books now it is really only for the trainer.. this way a client can keep adding and seeing their progress after they end with their trainer. It is also online, so its super accessible and not easily lost!" (PT 5)
Accessibility	"... it is online.. everyone is on the computer now a days which makes it very accessible no matter where the client is" (PT 1)
Accessibility	"I think it is a good idea for clients and trainers to use. I have not personally used them as of yet but could see it as a possibility in the future. Technology is the way to go as of lately" (PT 6)

In Table 1, all of the participants indicated what they believed would work well in an ePortfolio directed towards helping their clients reach his or hers goals. The above table explains how the participants in this study believed an ePortfolio should be used in a kinesiology setting. The main question that the participants were asked were "did they think an ePortfolio could be implemented into their everyday training regimes?" Although there were a variety of answers to this question, there was a general consensus that the ePortfolio would be something that was implemented at the very beginning of the relationship between the trainer and client. Many of the trainers believed that although the client has clearly gone out of their way to get a trainer, it is something that adds to their daily routine. Adding something like filling out an ePortfolio may be

extra work that the client might not want. By implementing the ePortfolio from the beginning, it will inform the client of exactly what the trainer is expecting from the client. This is also an opportunity for the client to explain what the client is wanting from the trainer. An e portfolio is a new form of communication that gives the opportunity to strengthen the relationship between the trainer and client. Personal trainer 3 agreed by saying that “using an e portfolio an excellent tool to strengthen the connection and quality of service between the trainer and client”. Personal trainer 1 also commented on how ePortfolios could be used as a tool between the trainer and client to keep one another updated, whether it is workout related, or whether they use it as a form to reach out to one another about life in general or simply missing a gym session.

Another theme that emerged from my findings was the importance of using an ePortfolio as a progress report tool. Not only can the trainer use the ePortfolio as a way to document the progress of their client, but the client can see the progress they have made and use it as internal motivation. Kolb (2008) describes internal motivation as the drive that makes a person want to learn something in the first place (Race, 2011). Continuing to offer an ePortfolio to tech-savvy clients could encourage and motivate the individual to keep engaged and involved. Ongoing involvement can be easily influenced by the ePortfolio because the client will be adding to their portfolio on a regular basis. Personal trainer 4 comments on the conditions that should be made from the beginning with the client;

“So right from day one, the personal trainer and client can agree on the conditions right from the get go...they would come up with some kind of routine where they both log in certain times a week – some days logging what they have eaten, some days logging how they feel...but also leaving room for the client to write whatever they want in it. Hopefully by then end of the final session, they can review it together and go over the progress – hopefully the client will keep logging in the e portfolio if it seemed to be a

successful way of reflection and time put towards their goals” (PT 4)

In summary, these findings show that the majority of trainers believed that ePortfolios would generally be beneficial to their clients reaching their desired goals, but only under specific conditions; that it was introduced at the beginning of the trainer/client relationship and that there was some type of regularity and mandatory updates done by the trainer.

Personal trainers’ perception on an ideal ePortfolio format and template

When ongoing involvement is developed, self-awareness and reflection can be found and supported through commentary, evaluation and feedback via e portfolios. For the ePortfolio to be successful, the trainer needs to have a template that includes certain criteria and allows for the freedom of text from the client. Parallel to the literature review, the following findings support Rossi, P.G., Magnoler, P., &Giannandrea, L. (2008) argument that there is at least four (4) main guidelines that should be kept in mind when creating an e portfolio: the ePortfolio should have mandatory activities and the ePortfolio should have voluntary activities, the learning path is coherent with the reflection objectives and the experts should provide support.

Table 2 depicts the results of what the trainers in this study believe an ideal ePortfolio format and template should include. The three main themes that emerged from this question include: client’s personal reflection (an area for the client to strictly generally comment on how the session went, how he/she is feeling, extra activities he/she will be doing, etc.), the trainer’s comments and reflections (an area strictly for the trainer to comment on how they felt the client is doing, areas for improvement, areas the client is excelling in, what he/she hopes to see, etc.) and activity/picture/website tracker (an area where the client can posts pictures, before and after,

have a sleep tracker, diet tracker, weight tracker, re-post blogs, etc.). These themes are all characteristics that trainers would like to see in an ideal ePortfolio template which will ultimately help their clients reach his/her desired goal.

Table 2: Ideal ePortfolio format and template

Themes:

- 1. Client's personal reflection**
- 2. Trainer's comments and reflection**
- 3. Activity/picture/website tracker**

Theme	Evidence – citation
Client's personal reflection	"I think there should be mandatory things that the trainer wants the client to write in... and then there should be areas that the client can have free range and write about anything...it should defiantly have room for the client to use reflection..." (PT 1)
Client's personal reflection	"I think that the e portfolio should mainly focus on thoughts and emotional response in regards to the training session. I think it should be more of qualitative evaluation, like not put a number, grade or anything on the training session more of a self-evaluation on how you feel and how you felt on the training session as a whole" (PT 4)
Trainer's comments and reflections	"There would be space where the trainer can add their input –whether the training session went well – or maybe warn the client as to what they are going to be doing at the next training session and how to prepare for it" (PT 2)
Trainer's comments and reflections	"Often times the trainer doesn't really get a chance to reflect on what transpired during the session and that could be also very advantageous for the trainer...to have an area for the trainer to comment" (PT 8)

Client's personal reflection and Trainer's comments and reflections	"Umm, it depends on what the goals are of the client...there should be room for the client and trainer like to reflect back on the past session or the day... on anything" (PT 1)
Client's personal reflection and trainer's comments and reflections	"It should have areas for...journal entries on how they feel that day, how they felt the session went that day, what they are looking for in the next session, if something bothered them.. Stuff like that the trainer can either address, or just know about the client" (PT 5)
Activity/picture/website tracker	"Workout tracker; a workout log that can be updated after every workout so the client has access and can view what she has done" (PT 3)
Activity/picture/website tracker	"It should allow the trainer to note progress in exercise progression, weight used, measurement, notes, scheduling...keep track of the workouts being done" (PT 7)
Activity/picture/website tracker	"It should have areas for eating habits...keep track of what they ate and if they are sticking to a diet plan..." (PT 5)
Activity/picture/website tracker	"Sleep tracker, sleep is a big part of staying healthy, there should be an area where the client can document how much sleep they are getting so the trainer can see how much sleep the client is getting..." (PT 3)
Activity/picture/website tracker	"Activity tracker, so the trainer can see how much activity the client is doing outside the gym sessions" (PT 3)
Activity/picture/website tracker	"It should allow the trainer to note progress in...weight used, measurement, notes..." (PT 8)
	"There could be a separate section for pictures.. you know how people take pictures of their food and stuff ...well maybe people can take

Activity/picture/website tracker	pictures of their food so their trainer can see it too!” (PT 1)
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It is important to understand the goals and outcomes that the client is hoping to reach. As illustrated in Table 2 above, the participants in this study believe there should be specific criteria for a kinesiology-related ePortfolio. Depending on what the trainer’s client is hoping to achieve, the trainer can alter their expectations to the specific situation with their client. The majority of the trainers in the study agreed that there needs to be some type of review to encourage reflection. To do that, the trainers said that there needs to be a section for the client specifically to have range of free text. In this area, the client can comment on anything ranging from what they ate that day, what they did that day, to what they hope they get out of their next gym session with their personal trainer. Not only will the trainer be able to read the comments and suggestions made by the client, but the trainer will also have the opportunity to fill in their own comments and suggestions. Rossi et al (2008) stated that learning will happen when there is constructive feedback given from an outside party, and reflection of the individual’s personal actions. Allowing for a private forum such as an ePortfolio will give the client and trainer the opportunity to do just that in a private and comfortable setting

As discussed by the participants in this study, there are several suggestions that could encourage reflection within an ePortfolio template. For example, a few of the participants discussed the importance of including a space where the client could capture their thoughts and emotions in addition to including data on their body measurements, weight, etc. An ideal template would also include an area for the trainer to reflect, a workout tracker, a diet tracker, a sleep tracker, weight tracker, and an area to list planned exercises. These suggestions were

discussed by the eight personal trainers interviewed who believed that their integration into an ePortfolio design would help a client reach desired goals and outcomes. Reflection is important to incorporate in the e portfolio because as the literature states, the most effective review techniques are those that reflect on what the individual has learned (Sherman, 2006). Rossi et al (2008) also encourage the use of “voluntary” text. Allowing the client to add free/voluntary text (commenting on how the client feels that day, suggestions on their gym sessions, etc) will allow for this reflection to occur and encourage body awareness. Since the roles of a personal trainer are not only to help reach an individual reach their goal weight, but also to provide support, guidance and act as social support, using the suggestions from the participants in the study would enhance a personal trainer’s ability to fulfil these roles.

Conclusion

The literature on using ePortfolios in professional settings is considerably small. It was found that ePortfolios have been successfully used in healthcare, schools, higher education, therapy groups and continuation of development in businesses (Herbert, Thibeault, Beaudoin, Tremblay, Seguin & Zamor, 2010). As an example, the Faculty of Medicine at the University of Ottawa, is currently using an ePortfolio for the students to document and record their learning paths. To consider the potential of using ePortfolios in a personal trainer/client setting, eight (8) personal trainers who work with clients at the Sport Services complex at the University of Ottawa were interviewed. I was focused on gaining insight into their views on the potential of ePortfolios in a kinesiology setting and in professional settings. The personal trainers had a variety of clients and all commented on the positive potential that ePortfolios could bring if an ePortfolio was to be used in their everyday training regime.

First, the personal trainers were asked as to what they believed should be in an ePortfolio template that was tailored for a kinesiology setting. The trainers believed that there should be areas that allowed for the clients to have free text. Areas such like this would allow the clients to talk about anything; what they did that day, what they ate that day, what extra physical activity they did outside of their gym session, how they were feeling, what they were thinking, what they were hoping to get out of in their next gym session with their trainer, how they think their last gym session went, so on and so forth. Some of the trainers believed that it should include an area where pictures could be posted. The pictures could be of anything, but examples that trainers 1, 2 and 6 provided were of before and after pictures of the clients and the progress, pictures of his/her meals, or even abstract pictures of how the client felt that day. In addition to having sections for just the client to fill out, the participants in this study felt it would be beneficial to include a section for the trainer to also add input. This section would give the trainer a chance to comment on how he/she felt everything was going, and to provide strategic support when needed. This finding reflects what it indicated in the literature as to the importance of integrating reflection in the e portfolio. Race (2011) expresses the significance of having feedback from other people while emphasizing the importance of reflecting on one's learning experience. Integrating ePortfolios that have a template that allows both the trainer and client to comment and suggest on the topic of discussion will allow for just that.

After the participants in this study commented on what they believed would be a successful ePortfolio template and format for a kinesiology setting, they were asked whether or not it would be something they could realistically add to their training regime. Studies prove that ePortfolios can enhance and motivate individuals to engage in deep learning and ongoing involvement, but is it something that can be added in addition to an already busy schedule of a

client that is looking to reach a specific goal? The trainers all commented on the timing of when the ePortfolio should be introduced to the client, at the very beginning of the relationship of trainer/client. Although generations are becoming more technology savvy, it does not necessarily mean that the technology has created more free time for them on a daily basis. Does this leave room for clients to sit down and fill out an ePortfolio for their trainer? My research findings demonstrate that trainers felt that if it was a condition that was introduced and discussed from the first training session, it would be a beneficial possibility. The trainers in this study recognize that most of their clients think of working out and going to the gym as something that needs to be worked into a routine. Therefore, some people who are just starting out at the gym might see using an ePortfolio as an opportunity as something to help them grow in their gym sessions whereas for others, they may see it as extra work. If the client decides that using an ePortfolio is something that they would like to engage in, the personal trainer needs to come up with parameters and suggestions to make using this software beneficial. These could include mandatory regular updates on the ePortfolio from both the trainer and client as to their general thoughts, feelings, reflections and suggestions. The parameters could be agreed upon and followed from the beginning to end where the client would see their final result of progress, reflect on the journey, and continue to engage in ongoing involvement in physical activity.

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Chapter IV

4.1 Discussion of results

The general purpose of this study was to examine the potential of using an ePortfolio in a kinesiology setting. There is an important need to enhance student engagement in classrooms and beyond. New technology applications like ePortfolios allow greater student reflection and deep learning. While ePortfolios are commonly found in an academic setting, they are also sometimes used in professional health care settings by patients, clients or peers. This thesis project explored how ePortfolios could be used by personal trainers, clients and athletes. What would be the outcome? How could a general template be modified to integrate essential components as identified by the personal trainers interviewed in this study? The participants in this study were eight personal trainers from Sport Services at the University of Ottawa who were former graduates of the Human Kinetics program at the University. This specific population was chosen due to their potential knowledge of ePortfolios introduced in two of their undergraduate courses in the program. Interview questions focused on understanding personal trainers' perceptions on the potential of using an ePortfolio when trying to encourage reflection and deep learning in a training session. Interviewees were also asked their opinion on what an ePortfolio should include to be most effective in a kinesiology personal training/client setting. The thesis aimed to better understand the growing trend of tech-savvy trainers and clients using such software such as e portfolios in an effort to more effectively engage in the physical activity process and reflect on fitness-related goals.

In the literature, Tosh, Werdmuller, Chen, Light and Haywood (2006) argue that ePortfolios created by students or a mentor are used to compile information, reflect, and assess

an experience. The trainers in this study all stated that they used some type of reflection tool as a strategy to overcome barriers to physical activity with their clients. The trainers all believed that an ePortfolio provided an effective means for a client to reflect in many different ways. The clients are able to enter free text, pictures, and suggestions and also receive feedback from their trainer. It gives the client a chance to reflect on their work out, their activities, what they have eaten, and comment on it. As such, an ePortfolio gives the opportunity to document an individual's learning path and reflect upon it and also to communicate this via an ePortfolio that the trainer can see. The findings revealed that these eight personal trainers are already using similar type tools as written log books, before and after pictures, and video tools as a way of reflection. An ePortfolio can include all these formats, but in one virtual location.

The findings yielded the following results: 1) Personal trainers view themselves as more than just someone to help an individual lose weight, they offer guidance, advice, and provide social support, 2) Reflection needs to be used as a learning tool to help clients reach deep learning and ongoing involvement 3) Personal trainers believe that ePortfolios should include certain characteristics adapted for a kinesiology setting, and 4) Although ePortfolios are beneficial in the long run, they may be difficult to implement into a regular training regime unless introduced at the onset. These findings will be discussed in greater detail below.

Personal trainers' perceived role in enhancing effective client reflection in their fitness journey:

When the participants were asked to discuss their role as a personal trainer, they all indicated it was more than just helping a client reach a goal weight. Many of the trainers described their role as someone who provides guidance, helps a client reach a specific goal,

increase performance, create accountability and routine as well as offer social support. Many of the participants believed their role consisted of not just one of these attributes, but all of them, making their job very rewarding. Some of the participants had athletes who were strictly there to achieve better performance results whereas others had clients that were primarily seeking a trainer for fitness advice, expertise, and also to have someone to talk with about their daily lives with the goal to reduce stress. Regardless of the initial reason that encouraged the clients to seek hiring a personal trainer, this trainer provided some kind of support and an opportunity to continue lifelong learning, whether it be reflection on behaviour or acquisition of new fitness-related skills. It seemed as though all of the trainers who participated in this study were generally concerned about reaching their clients' desired goals and outcomes and would help in any way possible.

The participants revealed a range of opinions as to how to reach these desired outcomes, but all considered reflection as a key learning strategy. This finding reinforces the general interpretation in the literature on the necessity of reflection for effective learning outcomes. For the purpose of this study, ePortfolios were explored as a potential reflection strategy that could be implemented by trainers to help their clients throughout their fitness journey. Throughout my interviews, a strong emphasis on the necessity of reflection emerged. Each of the participants commented on the importance of having some type of reflection tool present in their relationship with their client to encourage self-awareness, deep learning and ongoing engagement in their fitness plan. As earlier defined, reflection is a mental process involving an individual to look back on an experience and identify knowledge acquired. The individual can reflect back on their experiences and apply that knowledge in a present day or future situation. The tools used by the participants allowed for greater accountability as both the client and trainer could see progress

being made. Common reflection tools that were discussed by the personal trainers included; Logbooks, Coach my Video app, Diet trackers, Activity trackers, Sleep trackers, Video tracking, Measurement log, Fitness Pal app, before and after photos. Depending on established goals set by the client and personal trainer, different techniques were used rather than others. It could be said that the performance-based and muscle building objectives integrated reflection tools such as measurement logs and before and after photos so the client can see the progress. Log books and activity trackers were commonly cited as tools that provide minute details so as to give the trainer opportunity to provide daily support. However, the participants in this study did not limit themselves to using just one technique as some used more than one; it all depended on the desired goal of the client.

Two themes emerged from the research question that was designed to assess perception on the roles of a personal trainer. These themes are that personal trainers offer general social support; and secondly, that personal trainers provide specific kinesiology expertise and performance goal support. Regardless of whatever support was being offered (and often times it was both simultaneously), there was an integration of a reflection tool to increase likelihood of a client reaching their desired goal. Furthermore, the most important aspect and outcome of using any of these tools was to create reflection, resulting in deep learning and ongoing involvement. These findings reflect the literature in regards to the importance of emphasising reflection in the facilitation of learning. Rossi et al (2008) argue that student reflection can be enhanced through the use of programs and tools that guide them through various stages of thinking about and making sense of their experiences and linking them to knowledge acquired in the classroom. The individual recognizes their own perspective as an end result of learning from an assortment of informal and informal contexts. The personal trainers explained that many of their tools were

electronic. This was not a coincidence, but reflective of the increasing desire to monitor daily activities through phone/iPod applications, and to communicate them privately or publicly through social media websites such as Facebook, Instagram and Twitter. People are becoming more tech savvy and the trainers are taking advantage of using these technologies to enhance engagement from the client. Contrary to some studies, my findings indicate that technology was not a barrier to physical activity, although concern was raised with regard to potential extra work learning a new application may entail. This may relate to the fact that most of the personal trainers worked with university students as clients, a population that has a high use of cellphones and iPods.

Barriers personal trainers address and overcome

According to existing literature, there is an extensive list of barriers to physical activity. Barriers to physical activity are and not limited to: do not have time to exercise, find it inconvenient to exercise, lack of self-motivation, lack of confidence, lack of support and encouragement (Allison, Dwyer & Makin, 1999). The findings in this study found similar things – time, level of commitment/lack of motivation, confidence and transportation. The extra support needs to be put in place for the client to help overcome these barriers – whether it is physical or psychological or emotional. An ePortfolio can be tailored to address each of these barriers. An ePortfolio could be used to save time – whether it is to debrief about the latest gym session or saving the client from going into the gym to talk. It can be a spot for the client to vent and talk about how they feel that day. An ePortfolio can be a place where you open up with their trainer, talk about things you might not want to do face to face, suggest new diet plans, post pictures, the options are endless. The trainers in this study believed that feedback to their client was important. The trainers helped their clients through specific barriers through feedback which, in

some cases, helped build their clients confidence and motivation levels. Price, Hopwood & Pearce (2008) state that feedback is particularly important for healthcare learners. Price et al (2008) continue to say that failure to address feedback may impact directly upon the individual. Having the accessibility to an ePortfolio allows the trainer and client to have open communication and allow for feedback to be given almost instantly.

ePortfolios

The idea of opening more doors of communication between the trainer and clients means that their relationship may be strengthened through the use of the e portfolio. Ultimately, the ePortfolio is to help the client reach their desired goals and is to be used to benefit the client. Although many of the personal trainers supported the idea of using an ePortfolio as a reflective tool in the evaluative process with their client, there were mixed reviews as to whether or not they would immediately start using an ePortfolio with their current clients.

It was concluded that many of the participants in this study commented that if they were to use an ePortfolio, it would be implemented from the very beginning of their client/trainer relationship. The trainers indicated they would consider using ePortfolio software once they start with new clients in the future.

The importance of using reflection as a strategy to encourage deep learning and ongoing reflection through the uses of ePortfolio was the basis for this research project. The participants were all questioned as to whether or not they believed an ePortfolio could be used in an everyday training regime. The participants were also asked to explain what they would like to see in a template for an ePortfolio that was tailored strictly for a kinesiology setting and one they could use with their clients. All eight of the participants explained that they would like to see an area in the ePortfolio template that would allow for free text from the client. The client could talk about

anything; what they ate that day, how they felt that day, how they felt their training was going, talk about work or school. Three of the eight personal trainers thought that there should be an area where you could upload photos. Photos could include before and after photos, or photos of their food. The trainers also wanted to see an area for diet tracking. Here, the client could document their meal plans, recipes, any questions regarding what they should and should not eat, and the trainer could keep track from their end, commenting on the client's food or adding suggestions. It was important for a few of the trainers that there was a space for the trainer to input free text. These participants believed that trainers do not have sufficient opportunity to reflect together with the client as they usually spend the time lecturing and moving onto the next client. Having the opportunity to add information into an ePortfolio will allow the trainer to go back at the end of the day and type out how they felt the session went, what could be improved, or even comment on how they felt the progression of the session was going with the client. There were suggestions of using an ePortfolio as a type of calendar and mandatory updates to be filled in with all the targeted objectives. It is also felt that the written comments allows repetition of ideas conveyed by the trainer, as the client is often tired and not able to sufficiently remember everything that is said at the end of a workout session.

Limitations

The recruitment of this study took place at Sport Services at the University of Ottawa. The interviews were conducted in English, because the researcher did not speak French well enough to conduct research interviews. All of the participants spoke English fluently as this was a condition of their hiring at Sport Services, University of Ottawa. Limitation decisions were based on the available resources to undertake this study, as well as the decision to focus on personal trainers who are hired at the University of Ottawa as they were introduced to ePortfolios in their

undergraduate degree in Human Kinetics at the University of Ottawa. While limited in sample size, it was believed that it provided important insight into the potential of integrating and adapting ePortfolios to be used in kinesiology settings.

4.2 Conclusion

The focus of this research project was to explore the potential of integrating ePortfolios into the reflection and assessment component between a personal trainer and client. Could it be something a personal trainer could use with their clients to improve fitness outcomes? What would be the preferred format of the ePortfolio? To delve into these guiding research questions, eight personal trainers from the University of Ottawa were interviewed to see if they thought there was potential in using an ePortfolio in a kinesiology setting. The results gave insight into the ways an ePortfolio could be a realistic reflection and evaluative tool to benefit the trainer and client.

To address the gap in literature on ePortfolios in a kinesiology setting, a sociocultural perspective was used. The social ecological theory was used as this study's guiding theoretical framework. The social ecological theory describes the personal, social and physical environment that influence participation in recreational physical activity (Giles-Corti & Donovan, 2002; Giles-Corti, 2006), as well as their associated barriers. The accessibility of e portfolios allows for individuals who do not have daily access to a trainer and facility to continue to participate. Perceived barriers to routine physical activity and possible solutions were examined using qualitative research methods. Semi structured interviews were conducted asking eight personal trainers their perceptions on using e portfolios. Using a qualitative approach helped me to understand why participants felt and acted specific ways. Male and female participants were recruited from Sport Services at the University of Ottawa. The interviews were conducted in

English, and took place on campus in the early months of 2013 in English. The one hour allotted for the interviews allowed for sufficient time to gather data on the topic of how these trainers view ePortfolios. The trainers went into depth throughout the interviews explaining how they thought ePortfolios could be an effective tool, what they would want included in the ePortfolio, and potential things to consider when designing the ePortfolio template.

In this summary of findings, the researcher has touched upon the major themes identified in this research project by the participants interviewed on the topic of the potential of ePortfolios in a kinesiology/leisure setting. The overall conclusion to be drawn from this study is that while most of the participants believed that ePortfolios would provide a perfect avenue for reflection, a tool for encouraging deep learning and ongoing involvement, it would be difficult to integrate ePortfolio software in the middle of their sessions with their clients. The participants believed that if they were to incorporate ePortfolios as part of their training regime it would need to be introduced at the very first client/trainer meeting. The trainers who participated in this study believe that for many of their clients, hiring a personal trainer and attending regular gym sessions means going out of their comfort zone and adding more to their daily routine. Asking a client to have to add work (filling out their ePortfolio on a regular basis) to their already busy schedule may not seem appealing to the client and making them hesitant from signing up with the trainer.

Further, the study contributed to the findings that reflection is a major strategy for the facilitation of learning. All of the trainers that participated in the study said that they used some type of reflection tool to help their clients reach a desired goal or outcome. According to Rossi, Magnoler & Giannandrea (2008) reflection tools, such as the ones that the participants in this study used, allow for critical awareness and comparison of prior knowledge on a topic,

acknowledging the client's personal skills and allowing the client to transfer the competences to other domains allowing for areas of improvement – all of which an ePortfolio provides.

The objectives of this research project were to understand the roles of a personal trainer, the barriers to physical activity and how an ePortfolio could help a client through their fitness journey. It was discovered that personal trainers are hired for more than physical support but also general and performance support. There were a number of clients who looked to their trainer to provide social support as well as expertise to achieve performance-related goals. For those who do not make it to the gym on a regular basis, it was important that the trainer fully understood the barriers to help their client's overcome and address these issues. Main barriers that were discussed in the interviews included: time management, to lack of commitment/lack of motivation, low confidence and issues related to transportation. The participants in this study believe that ePortfolios could be a good way to overcome and address several of these barriers by providing electronic support to help their clients reach the desired goals.

4.3 Future Directions

While ePortfolios hold great potential, there are still areas for improvement, especially to respond to this specific clientele. Further qualitative studies exploring the roles of personal trainers and perceived barriers in physical activity should be explored so that future efforts can take into account their unique perspectives while trying to understand the perspective of the clients at the same time. Not only should the perspectives of both the trainer and the client be studied, but also consider the likelihood that the client will adopt an ePortfolio application. My findings also revealed that clients prefer to spend time developing reflection in an application that in itself is social, it can be shared with friends, personal trainer, but also among a community of practitioners. Future studies could focus on ways to ensure that the adoption of a new

application or use of software is not cumbersome, but instead allows the client and personal trainer to engage in reflection in a visual, interactive and personal reflection ePortfolio tool.

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Appendix A: Interview Guide

First off, I'd like to thank you for agreeing to participate in my thesis project. I want to remind you that you can back out at any point if you feel uncomfortable. At the end of this interview you will be compensated for your time with a \$20 Tim Horton's card. The interview will last approximately 60 minutes asking about your knowledge, feelings and background with e-portfolios. I will also show you the free e-portfolio program online called Mahara. At any point you have any questions please feel free to stop me and ask. If you decide to use the program in your training regimes, we could potentially do a second follow up interview asking about your experience using the program. All your information and feedback will remain completely confidential. Only my supervisor and I will know the name you have chosen to hide your identity. You will be given a chance to review your transcribed interviews and approve the information recorded. Any suggestions and feedback that you believe worked and didn't work will greatly be appreciated... and if you don't have any further questions let's start!

1. Can you please define what you believe are the following terms:
 - a. Personal trainer
 - b. Reflection
 - c. Deep learning
2. How long have you been a personal trainer at the University of Ottawa?
3. How many clients do you currently train and what are the age ranges between them?
4. Why on average do you believe your clients participate in physical activity and hire you as a trainer?
 - i. Health reasons (weight loss, muscle build, etc)
 - ii. Social reasons
 - iii. Other
5. Do your clients regularly make it to your gym sessions?
 - b. If not, what are their main reasons for not making it?
6. What do you see as personal barriers to participation in physical activity?
7. Do you use tracking logs or motivation apps in your training regimes? If so, please describe, noting any advantages and disadvantages observed. Were they effective? Do clients like to use them?
8. Have you been exposed to an e-portfolio in your studies? Do you know what they are? (respondents answer, then describe what it is, showing them on computer)

9. Have you had any previous experience in using an e-portfolio? When? How? Did it help achieve educational or personal goals?
10. Can you describe any positive or negative experiences using the e portfolio software?
11. Do you believe e- portfolios could enhance an individual's motivation in physical activity and or help reach an individual's goals?
12. Can you explain the ways in which an e portfolio can strengthen the relationship between a personal trainer and their client? Or do you think it will affect the relationship at all?
13. To be effective, what do you think an e portfolio should include, and how should it be designed?

14. I will now show you the free e portfolio online called Mahara that I ask you to consider using to foster reflection, deep learning and goal setting.

15. Do you have any suggestions/comments for an e portfolio that is focused on meetings needs in kinesiology settings?

16. Do you believe e portfolios could be integrated into a personal trainer's regular training regime? Why? How?

Any further suggestions, comments, observations?

Thank you very much for your time and input!

Appendix B: Information Sheet for Participants

INFORMATION SHEET FOR PARTICIPANTS

Enhancing reflection and deep learning through ePortfolios

We would like to invite you to participate in this graduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you wish to take part in this study, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

Study Purpose: The purpose of the study is to see the ways in which personal trainers hired by the University of Ottawa Sport Services could use an e portfolio in their training regimes. This study will explore how personal trainers could integrate an e portfolio tool with their clients to enhance reflection, deep learning and on-going involvement.

Participation: My participation will consist of 1 initial interview and potentially a second follow up interview. The first interview will last approximately 60 minutes long with the goal to gather information on my knowledge, thoughts and experiences on e portfolios. The interviews will take place in the early months of 2013 on the 4th floor of Montpetit building in the Sociology of Sport Research lab. I agree that my interview will be tape recorded and manually transcribed. You will receive a \$20 Tim Hortons giftcard at the conclusion of the interview as a token of our appreciation of your time.

Risks: The participant must understand that their participation is to answer questions about their uses of e portfolios in their training regimes and if they believe using a e portfolio is an advantageous learning tool. The participants are free to refuse to answer any question that may create slight discomfort. The participant must understand that they may withdraw from this research at any time.

Benefits: My participation in this research will result in a better understanding of the uses of e portfolios in a Kinesiology setting. If proven to be beneficial, an e portfolio template centered around kinesiology needs could be created from the suggestions and feedback provided in this study.

Confidentiality and anonymity: The information shared will be kept strictly confidential. The content used for this project only, and dependent on confidentiality. Anonymity is guaranteed. Participants therefore will be asked to choose a pseudonym (false name) and it is the latter that will be used for transcription of my interview. If portions of the interview are quoted in the research, the same false name will be used and information leading to identification will be removed.

It is up to you to decide whether to take part or not. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason.



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Appendix C:

School of Human Kinetics

PERSONAL TRAINERS HIRED BY THE UNIVERSITY OF OTTAWA SPORT SERVICES NEEDED FOR RESEARCH ON THE USES OF EPORTFOLIOS IN A KINESIOLOGY SETTING

We are looking for volunteers to take part in a study
*that explores the potential of e portfolios in Human Kinetics/Leisure educational settings
and professional practice*

As a participant in this study, you would be asked to:

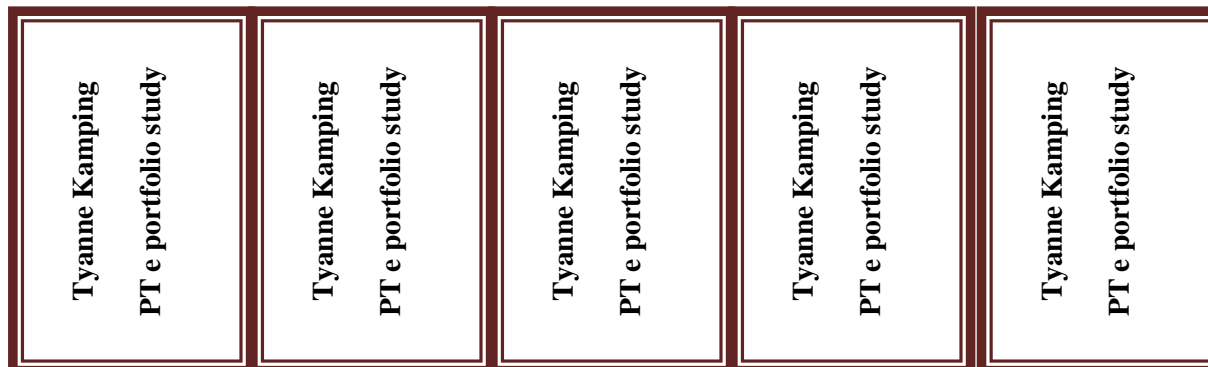
Answer questions in an interview about your knowledge and experiences on e portfolios and whether you think e portfolio's are an advantageous tool in a Kinesiology setting. **We are looking for personal trainers hired by the University of Ottawa Sport Services who are fluent in English and past/current Human Kinetic students. Experience with e portfolios is an asset.**

Your participation would involve an interview lasting approximately 60 minutes about your knowledge, thoughts and experiences with e portfolios. You will be asked if you would be interested in using a free e portfolio program in your training regimes. Participants will receive a \$20 Tim Horton's for their time.

For more information about this study, or to volunteer for this study,
please contact:

Participants will be chosen on a first come, first serve basis

Tyanne Kamping



File Number: H02-13-04

Date (mm/dd/yyyy): 03/21/2013



Université d'Ottawa **University of Ottawa**
 Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

Ethics Approval Notice
Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Eileen	O'Connor	Health Sciences / Human Kinetics	Supervisor
Tyanne	Kamping	Health Sciences / Human Kinetics	Student Researcher

File Number: H02-13-04

Type of Project: Master's Thesis

Title: Exploring the potential of e portfolios in Human Kinetics/Leisure educational settings and professional practice

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
03/21/2013	03/20/2014	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:
 N/A