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FROM EXPERIENTIAL LEARNING TO WORK INTEGRATED LEARNING: PHYSICAL EDUCATION TEACHER DEVELOPMENT

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Abstract

In this case review Physical education teacher development in the province of Ontario (Canada) utilizes educational practicum to facilitate teacher training and personal experiential based growth. This teacher training integrates Kolb's 1984 experiential learning theory including, concrete experience, reflective observation, abstract conceptualization, and active experimentation to realize professional development. The experiential learning in this case is based in practicum includes progressive authentic experiences and reflective observation; however, within the work integrated experience certain components for abstract conceptualization and active experimentation are admittedly wanting. This means students are not adequately encouraged to connect their practical experiences with theoretical coursework or to apply new ideas generated from these experiences. Thus, we argue within this case review that micro-teaching in teacher training courses brings to life theory provided in classroom-based teacher training via performance based pedagogical tasks in coursework. In both instances, theory need be connected and used in field-based practicum and classroom-based microteaching experiences which are key elements in Ontario teacher training of physical educators.

Keywords: experiential learning, physical education, teacher training, practicum

Introduction

In the year 1984 David Kolb revealed framework and theory illuminating experience by learning, suggested "learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb, 1984, p. 41). Kolb's experiential learning model clarified how people learn from experience (Watson et al., 2019). Experiential Learning (EL) involved a continuous recursive cycle with four stages, each stage represented a different mode of learning. The first mode was labelled Concrete Experience (CE) as learning began through direct, hands-on involvement in a new activity or situation. CE involves engagement in an experience without predetermined notions, allowing people to learn in the moment. The second mode is Reflective Observation (RO). RO often surfaces following the learning experience as people pause to reflect upon experiences, however it is possible to reflect upon the experience as it happens. Usually, RO involves revisiting and thinking about experience from numerous perspectives, considering what unfolded well and what needs improvement. The third mode involves Abstract Conceptualization (AB). In this stage, people draw conclusions and form theory based on reflections. Students cultivate new ideas, positions and/or modify existing understanding to predict future outcomes. Mode four involves Active Experimentation (AE) as people apply newly theory, positions and understanding within the experiential world around them. AE involves formation and employing what was learned, leading to more experiences, and continuing the recursive cycle of EL (Watson et al., 2019).

Physical Education Teacher Training: Pre-service

Within the province of Ontario, Canada's largest, teacher training is accredited by the Ontario College of Teachers (OCT). OTC states: "Pre-service programs of professional education in Ontario,

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whether long-standing or newly established, must satisfy all of the requirements as outlined in Regulation 347/02 to be accredited by the College" (Ontario College of Teachers, 2024, p. 1). The Ontario College of Teachers mandates pre-service education and training for all would be teachers and views the process as a period of development in which focussed teacher training matures. In addition, teachers in training must complete practicum and "Faculty of Education training (theory) that extends over two years and includes the study of pedagogy, instruction, curricula, policy, and administration" (Ryan, 2009). This training guides and informs the development of teachers in the province of Ontario. Each teacher training program "reflects such aspects as current Ontario curriculum plus relevant legislation and government policy, including the College's Standards of Practice for the Teaching Profession and the Ethical Standards for the Teaching Profession" (Ontario College of Teachers, 2024, p. 1).

Training to be a Health and Physical Education teacher in Ontario means that the OCT has accredited the program and approved the extent to which the program enacts its conceptual framework, provides approved course content, delivers program and structures practicum to meet certain standard and/or requirements, while utilizing learning materials and making resources available to teacher candidates and educators. As well, each Ontario Faculty of Education must teach the assessment of achievement, employ qualified faculty and follow institutional policies and procedures governing the Ontario teacher training program (Ontario College of Teachers, 2024, p. 1), which has been accredited.

Both theories provided in class and practicum experiences are key elements in Ontario teacher training yet, certain pre-service teachers may still believe they are inadequately prepared (Ryan, 2010). Being aware of this feeling of inadequacy may cause University Professors who train pre-service teachers to structure the program of training to include class leadership possibilities and teaching opportunities in classes. This is where the use of peer teaching (micro-teaching) in teacher training classes provides experience in leading a class just as the practicum provides experiential learning (EL) that is authentic. These experiences cause "pre-service teachers to frequently identify their experiences in the field as moments when most of their learning about teaching occurred" (Siebert, 2005, p. 1).

Micro-teaching is a preservice teacher education experience that requires student teachers to lead a university class teaching and instructing peers to simulate what the teacher in training may have to do while in practicum and while in-service (Hamidi & Kinay, 2021; Mahmud & Rawshon, 2013; Ryan, 2010). Micro-teaching today is a global mode of instruction that can be found in many tertiary institutions in many fields of study and is supported by students and Faculty alike (Hamidi & Kinay, 2021). It is yet another means of accumulating teaching experience before stepping into more authentic in-service teaching landscapes.

1.2 EL Benefits

Experiential Learning (EL) whether in the field or in classrooms (micro-teaching) provides numerous benefits while enhancing education and career prospects. Students at all levels do appreciate EL activities via such programs as co-operative learning, internships, clinics, capstone projects, research with faculty, study abroad programs, field schools, volunteering, and co-curricular experiences. These EL based opportunities help students prepare for their careers by allowing them to learn in authentic environments (University of Calgary, 2020, p. 1). EL promotes hands-on (progressive) learning, which is important in developing career readiness and professional skills. Student teachers want more practical and skills-based learning experiences in combination with classroom theory to instigate growth and professional development.

Mentorship is another positive aspect of EL, as it helps create a sense of community and support for students in the field or in the classroom (Ryan & Ryan, 2023). Integrating EL into inclusive academic programs through internships, field experiences, practicum, and capstone projects ensures that all students can participate. Involving alumni in EL initiatives also enhances learning by providing real-world insights and networking opportunities, which builds students' confidence in their career choices (University of Calgary, 2020, p. 1). Overall, EL is most beneficial for students' education and future careers, in this case Physical Education.

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The quality of an experience (defined by cognitive, physical, and cultural aspects) often pushes interest higher and empowers the learner (Ryan & Ryan, 2023). The integrated EL model (Figure one above) supports educational theorists, practitioners, and educators in their efforts to both understand and apply EL theory. Yet, applicability varies due to cultural and contextual differences within a simplified understanding of EL. In sum, Kolb's EL as depicted in figure one above is a cyclical model and a recursive process that employs a holistic approach that deepens learning, while integrating experience, stimulating reflection, inspiring conceptualization, and experimentation. From the onset of EL model development Kolb suggested learning is a continuous process based in experiences which supported Dewey's early work and linked to Piaget's theories. Behrendt and Machtmes (2021) claim that the interest stimulated by the experience drives "Kolb's learning cycle and that the learning cycle continues if interest is maintained" (p. 74).

1.3. EL Negatives and Barriers

Despite EL benefits, EL faces several challenges that limit student participation and overall feelings of optimism toward EL. EL brings to light financial barriers which are a major issue, as many students cannot afford EL opportunities (Stowe et al., 2022). EL traditionally is without a wage for time invested and if there is compensation it is not enough. Also, EL often involves travel to distant locations and large amounts of time which eliminate part-time or full-time work outside of the EL (teaching practicum).

Accordingly, there is also a lack of awareness among students about the available EL opportunities (Stowe et al., 2022). When EL opportunities are taken advantage of by students' time constraints surface diminishing the quality of EL (University of Calgary, 2020, p. 1). Students find it difficult to balance their academic workload with the time required for EL activities (Stowe et al., 2022). Existing program requirements often lack the flexibility needed to accommodate EL experiences, making it hard for students to fit these opportunities into their schedules. Students benefit from EL opportunities early in their academic programs, particularly in their first and second years (Stowe et al., 2022). And yet, equity and inclusion issues further complicate matters, as some students feel excluded from EL opportunities due to financial constraints, rigid course requirements, and a lack of representation. Furthermore, students often feel that their courses do not clearly explain how the skills they learn are transferable to the workplace. In many instances, improved advising and resources are needed to help students navigate EL opportunities, with academic advisors and course instructors needing more knowledge about EL and its benefits (Stowe et al., 2022).

2.0 Work-Integrated Learning (WIL)

In 2024 EL has transformed into work-integrated learning (WIL). Researchers define WIL as "… a pedagogical practice whereby students come to learn from the integration of experiences in educational and workplace settings" (Stirling et al., 2016, p. 190). Although WIL is more prevalent in the current educational landscape, critical reflection and critique are required for a suitable analysis of its place in education.

2.1 Reflection: Work Integrated Learning (WIL)

Reflection in WIL is when students think deeply via "retrospection that provides new understanding and informs future action" (Stirling et al., 2016, p.67), within their work experiences. They analyze what they did, why they did it, and what they learned. This helps students connect what they learn in class with what they do in the workplace. Appropriate reflection in WIL involves, learner autonomy which encourages students to take charge of their learning.

Challenges and feedback, provides students with tasks that are difficult but doable, along with regular responses. Collaboration within WIL creates chances for students to work with peers and mentors and connects theory to practice, helping students see how their work experiences relate to what they learn in class. Goal Setting within WIL urges students to set learning targets and think about their progress. WIL can be established in diverse contexts, which can be adapted to different work settings and student backgrounds. Finally, an incorporation of inductive and deductive learning to combine

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learning from specific experiences (inductive) and applying general principles to specific situations (deductive). (Stirling et al., 2016, p.104)

A structured approach like Ash & Clayton's (2009) D.E.A.L. Model for Critical Reflection helps students describe their experience, examine it with specific questions, and articulate learning by identifying what they learned and how to use it in the future.

2.2 Experiential Education as WIL

Experiential Education or Work Integrated Learning (WIL) has numerous benefits, yet its success depends upon several important factors that include, structured integration, learning theory, learning environment, evaluation and feedback, flexibility, and ethical practices. Structured Integration means that merely having work experience is not always enough. The practical value of WIL comes from linking theory with practice in a deliberate way. Programs should be carefully designed to highlight this connection and WIL programs should be based on learning theories, like Kolb's experiential learning cycle (Stirling et al., 2016, p.162). Kolb's framework includes experiencing, reflecting, integrating theory, and experimenting, which helps in designing effective WIL programs.

Accordingly, the learning environment is critical to the success of WIL programs, such as the physical space, social interactions, mentoring, and safety (University of Calgary, 2020, p. 1). As well a supportive environment enhances the quality of authentic WIL. Furthermore, ongoing evaluation of WIL programs is crucial to ensure they meet their goals. This includes assessing needs, evaluating how the program is implemented, and measuring its effectiveness. Feedback from students, teachers, and workplace supervisors is important for improvement (Ryan & Ryan, 2023). Along similar lines, effective WIL requires strong partnerships between schools and workplaces. Both have unique strengths and knowledge that make the learning experience better. Working together ensures the program is relevant and practical.

As highlighted by Kolb, student needs and preferences are highly diversified, and WIL programs need to be flexible to cater to different learners and work settings. This means designing programs that can adapt to different learning styles, career goals, and industry needs. Lastly, ensuring ethical practices in WIL, especially in evaluation, is essential. Consulting with ethics boards and following ethical guidelines protect the rights and interests of all participants. In summary, while WIL has many advantages in combining theory and practice, its success relies on careful planning, strong partnerships, and continuous evaluation. Programs must be thoughtfully designed to ensure students gain valuable insights and skills from their work experiences (Stirling et al., 2016, p.162).

To summarize, WIL (student teaching practicum) serves a specific function in the modern educational teacher training landscape. Its ability to connect students more practically to authentic learning opportunities offers a myriad of benefits for both students and instructors. However, the practice does require refinement towards its employment on a broad and diverse scale, as each learner's preferences and unique abilities demand different contexts for best practice. Overall, WIL is a progressively more popular option for post-secondary students in 2024.

2.3 EL as Practicum within WIL

EL or Practicum (WIL) within Ontario teacher education programs require a student to teach outside of the university teacher training program in institutions (schools) that offer educational programs (grades K-12) accredited by the Ontario College of Teachers. The Ontario education student is observed and evaluated by a university advisor and an in-service educator, most often a teacher in the classroom. Certain teaching standards or competencies are looked for and it is this expected performance by the student teacher that infuses the teaching practicum. The student-teacher or Teacher Candidate (TC) must teach in an educational environment and successfully manage behaviour of pupils while carrying out all duties professionally as an in-service educator would.

EL as Practicum (practice teaching) activates reflection and student teachers "plunge into the doing and try to educate themselves before they know what it is they're trying to learn. The teachers cannot tell them. The teachers can say things to them, but they cannot understand what's meant at that

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point" (Schön, 1987, p.1). The TC discovers responsibilities of a professional educator via experiential learning within WIL (Beck & Kosnik, 2002). Practicum involves guidance (coaching) and supervision of student-teacher learning; and an Associate Teacher (AT) mentor and provides evaluative feedback. The practicum supervisor oversees the process and reports back to the teacher training institute.

Ontario students in teacher training are exposed to pedagogical theory via the Ontario University Faculty of Education. EL accumulates within practicum and often theory learned surfaces within successful teaching practice as both abilities and skills of the student teacher are cultivated. Practicum delivers EL that is thought-provoking, multifaceted and often exciting as student teachers lead students. Successful completion of practicum is a prerequisite mandated by the Ontario Ministry of Education.

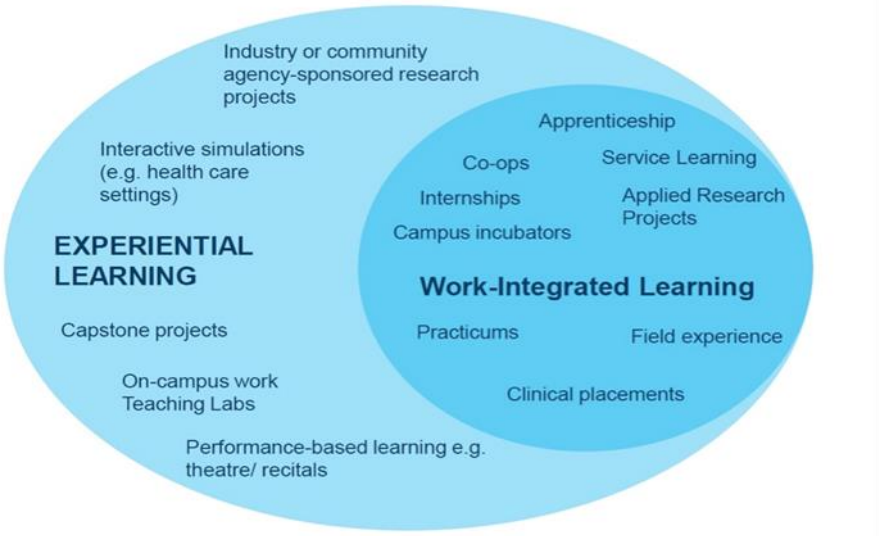


Figure 1. Ontario Ministry of Advanced Education and Skills Development (2017) MAESD's Guiding Principles for Experiential Learning: Experiential Learning Overview.

3. Summary

In sum, effective educational internships or practicum integrate Kolb's (1984) experiential learning theory, which includes four modes: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Stirling et al., 2017, pp. 40-41). However, while internships often include concrete experiences and reflective observation, they frequently lack components for abstract conceptualization and active experimentation (Ryan & Ryan, 2023). This means that students may not adequately be encouraged to connect their practical experiences with theoretical coursework or to apply new ideas generated from these experiences (Stirling et al., 2017, p.42).

Addressing these gaps, postsecondary teacher training institutions should incorporate theoretical ideas, abstract concepts, and active experimentation more effectively going forward (Stirling et al., 2016, p.42). The integration of theoretical ideas can ensure that internships include structured opportunities for students to reflect critically on their workplace experiences and connect them with classroom theory. This could involve assignments (action research), discussion sessions, or mentorship programs that encourage deeper analysis and integration of knowledge (Ryan, 2010).

To encourage abstract conceptualization, institutions could create conditions for students to explore and articulate how their internship experiences relate to academic concepts. This could be done through reflective journals, theoretical essays, or presentations that require students to draw connections between practice and theory (Stirling et al., 2017, p.42). Finally, to promote active experimentation, instructors could provide opportunities for students to implement new ideas and skills in their internship

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roles. This could involve project-based tasks, innovation challenges, or research projects that encourage the application of academic knowledge in practical settings (Stirling et al., 2017, pp.41-42).

Generally, while internships have the potential to advance classroom knowledge, Stirling et al. (2017) suggests that a more structured and theory-informed approach is needed (p.43). Findings emphasize the importance of collaborative efforts among students, academic faculty, course coordinators, and industry professionals to establish clear learning objectives and outcomes for internships (p.42). Regular progress meetings and feedback sessions can ensure that internships remain aligned with educational goals and provide meaningful learning experiences (Stirling et al., 2017, p.37). By addressing the gaps identified and fostering stronger connections between practical experiences and academic learning, internships can become a more effective tool for educational improvement via EL.

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