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Physical Education Technology Playbook

By: Darla M. Castelli & Leah Holland Fiorentino (2008)
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Both Castelli and Fiorentino are well established writers in the field of physical education technology. As authors of articles such as: Physical Education Teacher Education: Innovation Through Infusion and Integration (1993), Preparing Professionals to Use Technology (2002), Digital Video Assignments (2004), Facilitating Physical Education Through WebQuests (2004), Technology Integration: Virtually Possible (2005), Creating a Virtual Gymnasium (2005), and Building and Use of Technology to Observe and Assess Physical Play (2005) they are uniquely qualified to provide guidance and leadership in this developing area.

This book is a compilation of technology topics relevant to teachers with varying degrees of computer knowledge. It is accompanied by a supporting website hosted by Human Kinetics and only accessible from their web platform with the distinctive key-code found on a removable page inside the book's cover. There are sixteen chapters that offer insight on everything from spreadsheets to advanced video editing and multimedia production. Each chapter is easy to read and written using simple non-technological terminology. For any expressions new to the reader, like 'terabyte' or 'hypertext', a glossary of terms found at the end of the book is a quick and easy reference. This book is clearly written for physical educators and maintains that focus throughout the text and ancillary resources. Like any manual that endeavors to capture a wide range of rapidly changing topics, the *Physical Education Technology Playbook* is a mile wide and a foot deep. The authors have avoided delving too deeply into any particular topic and have succeeded in providing an introductory resource for physical educators and pre-service teachers.

In the opening section, Castelli and Fiorentino understate the limitations of a technology textbook and invite the reader to explore the potential of its integration in physical education through a series of learning modules. A statement such as "teachers learn to collect performance and observational assessment data with handheld devices" (p. viii) might be a bit presumptuous unless the reader takes the time to use the web-based associated module and accompanying files. Each module is aligned with the K-12 National Physical Education Content Standards (NASPE, 2004) and contains a probing question,

assignment tasks, and assessment criteria. Additionally, most chapters provide a connection to associated research or relevant educational theory that further validates the significance of each topic. A complete summary of the supportive materials that are found on the companion website is strategically placed in the text prior to the first chapter. This quick reference is a bit daunting with its file numbers and reference to national standards, but it does serve the purpose of providing the reader with an index of the teacher resources without having to be logged into the Human Kinetics resource support site.

The first chapter speaks about the culture of technology in education and the role of technology in the childhood obesity crisis. It also introduces the National Standards for Beginning Physical Education Teachers (NASPE, 2003) and the K-12 National Standards for Physical Education Students (NASPE, 2004). The emphasis placed on the importance of achieving student outcomes is a consistent strength of this resource. It is evident that both of the authors are in the classroom and not simply approaching this topic from an academic perspective.

The next chapter begins like all the rest, with a creative and clever vignette describing a particular use of technology in a physical education context. When reading the vignettes, it's not hard to imagine yourself in the situation they are describing. Building on the relevancy of the NASPE standards, chapter two focuses on the role of the educator and how teacher preparation programs can and should embed technology into their training. It's an inspiring section that is grounded in best practice and motivates the reader to consider how they might become an exemplary 'technology-savvy' instructor.

Sections three through fourteen are the 'meat and potatoes' of this textbook. Topics such as data management, charts and graphing, web page development, desktop publishing, editing digital images, PowerPoint, and PDA's are addressed in these short, easy to read and understand chapters. In some cases the chapter is only a few pages long, but each one is aligned with a corresponding teacher module and series of lesson plans that are well thought out and written by educators, for educators. This 12-pack of content won't make you an expert in any of the areas, but it does provide a conceptual baseline from which a reader may choose to seek out more detail. For example, in chapter six the authors describe what a web site is and why it is important for teachers to consider developing one. Strategies and the necessary theoretical steps for the creation of a web site are then reviewed. Even though appropriate software is suggested for building a website, this book is not intended to be the procedural guide on how to do that. However, by following the recommended seven-step approach to web development, a teacher could easily design and populate the conceptual outline and seek additional resources (like a web designer or a technical guide for website development) to build the framework.

The fifteenth chapter outlines ways to measure physical exertion using technology, and is particularly interesting with its relevance to student assessment. Innovative techniques to measure energy expenditure before, during, and after class are summarized and include the use of equipment such as pedometers, heart rate monitors, and accelerometers. This chapter is a classic example of why a textbook in physical education technology has limitations. New developments in the field such as a strapless heart rate monitor, global positioning technology, and the Bodybugg (which accurately measures caloric output), have evolved and were simply not available when this resource was published only one year ago (2008).

The culminating chapter addresses the newest and most recently educationally integrated technologies like blogs, wikis, and podcasting. It also provides a template for the long-term incorporation of technology and offers tactics to overcome barriers. The caveat on the second last page of the document speaks to the need for subsequent editions of the text, and invites guest authors to share their particular expertise. Succeeding editions of this book should consider having an index for faster use when readers know what they are looking for. In addition, there is a noticeable absence of active gaming such as DDR (or the new wireless I-Dance system), Wii Fit/Wii Sport, XR Board Dueler system, Lightspace, and the many other innovative educational and fitness applications being created for the gamer generation. A chapter on the integration of interactive fitness and exergaming would be a very popular improvement to an already thorough and valuable resource.

The pedagogical commitment of the authors is obvious throughout the book and especially evident in the web-based teacher modules and lesson plans. The usefulness of the *Physical Education Technology Playbook* in University PETE programs is palpable. In particular, some of the teacher modules could easily be given as assignments to pre-service physical educators with little or no modification. Many of the worksheets require hands on experience and often encourage reflection about how a teacher might be able to adapt technology into their particular setting.

In the absence of an expert in your school (like Darla Castelli or Leah Holland Fiorentino), this book is a must-have for every physical education teacher who needs assistance with integrating technology into the curriculum. Although designed for physical educators and pre-service teachers, this resource would also be a useful read for coaches and parents. The content is broad and easily transferable to adults who work with children in alternative environments or find themselves home schooling their family. This textbook won't help you become a computer expert, but it will certainly assist you in knowing why and when you might need one.

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