Expanding Reach: AADE7® Moves into the Digital Space

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Background

The 2017 National Standards for Diabetes Self-Management Education and Support (DSMES) encouraged inclusion of technology-enabled models of care for curriculum delivery, individualization, ongoing support, and collaboration among the care team.[1] The American Diabetes Association (ADA) recognizes DSMES as a standard of care, and, for the first time in 2018, encouraged the use of technology-based platforms for the delivery of effective DSMES.[2]

As a leader in the field, the American Association of Diabetes Educators (AADE) collaborated with an industry partner (WellDoc, Inc.) to digitize its AADE Diabetes Education Curriculum: A Guide to Successful Self-Management, 2nd Edition on a mobile platform.[3] The digital curriculum offers a pathway for people with diabetes to access customized self-management education anytime, anywhere through the FDA-cleared digital therapeutic BlueStar®.[4] The anytime, anywhere nature of mobile technology offers an additional pathway for scaling DSMES.

Process

A multidisciplinary team developed the digital curriculum. The team included a certified diabetes educator, nurse informaticist, software engineer, product manager, user interface/user experience expert, graphic designer, AADE's Chief Technology Officer, and an AADE subject matter expert.

The guiding principles for the project were to:
- Provide contextual, evidence-based education that could be accessed anytime, anywhere; and
- Support learning, problem-solving, and behavior change to improve diabetes outcomes.

The AADE7 Self-Care Behaviors™ were used as the content framework to create BlueStarU, a digital curriculum within BlueStar. The diabetes educator broke the seven behaviors into topics, courses, and lessons, sequenced to support incremental improvements in knowledge and skill. Along with principles of plain language, a respectful, nonjudgmental, and encouraging tone and wording were used in accordance with joint ADA-AADE guidance.[5] Further, to improve user experience and ensure relevancy, approximately 10% of lessons were tailored to the user's unique medication profile.

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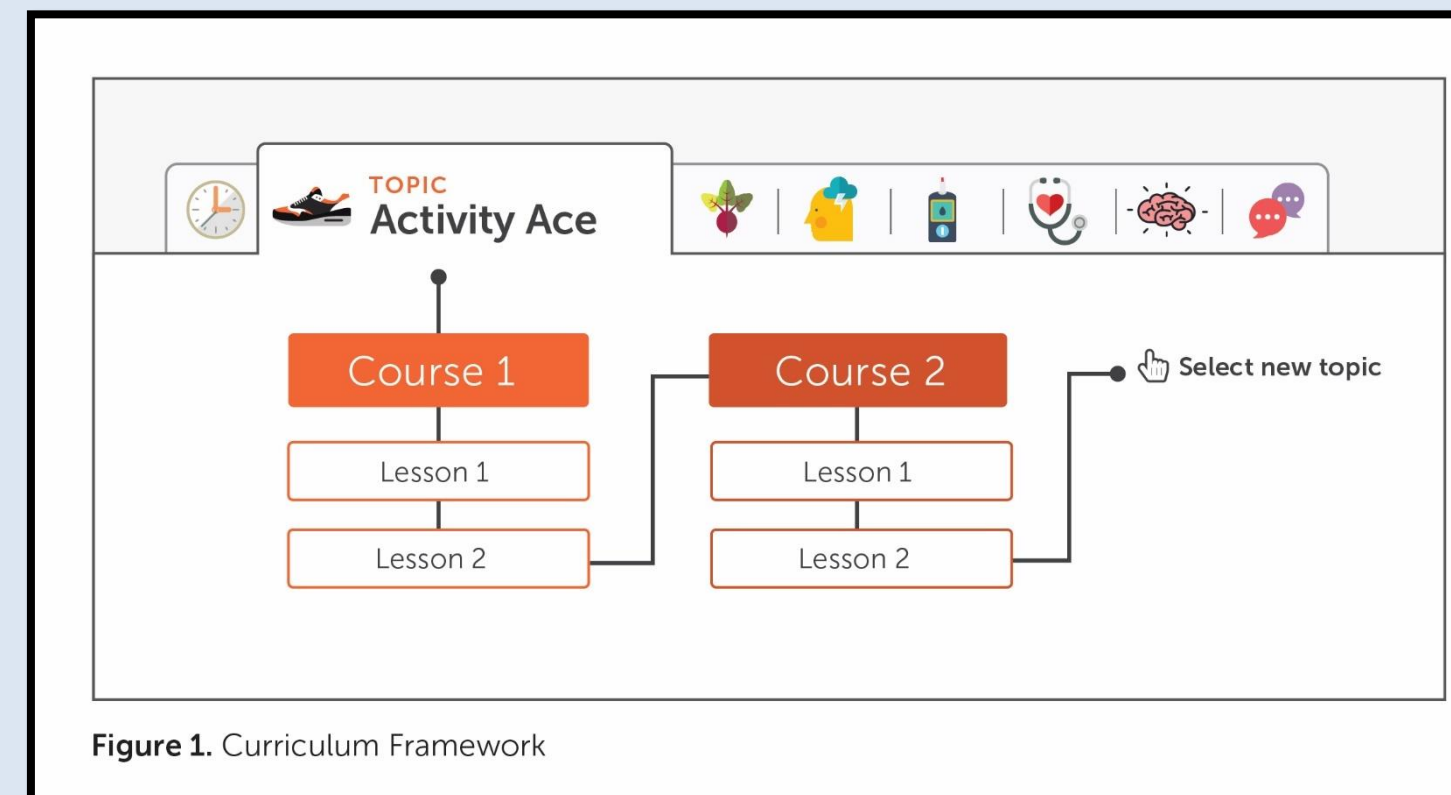
Digital Curriculum Framework

Figure 1. Curriculum Framework

Users progress through AADE7® behaviors within BlueStarU's courses and lessons.
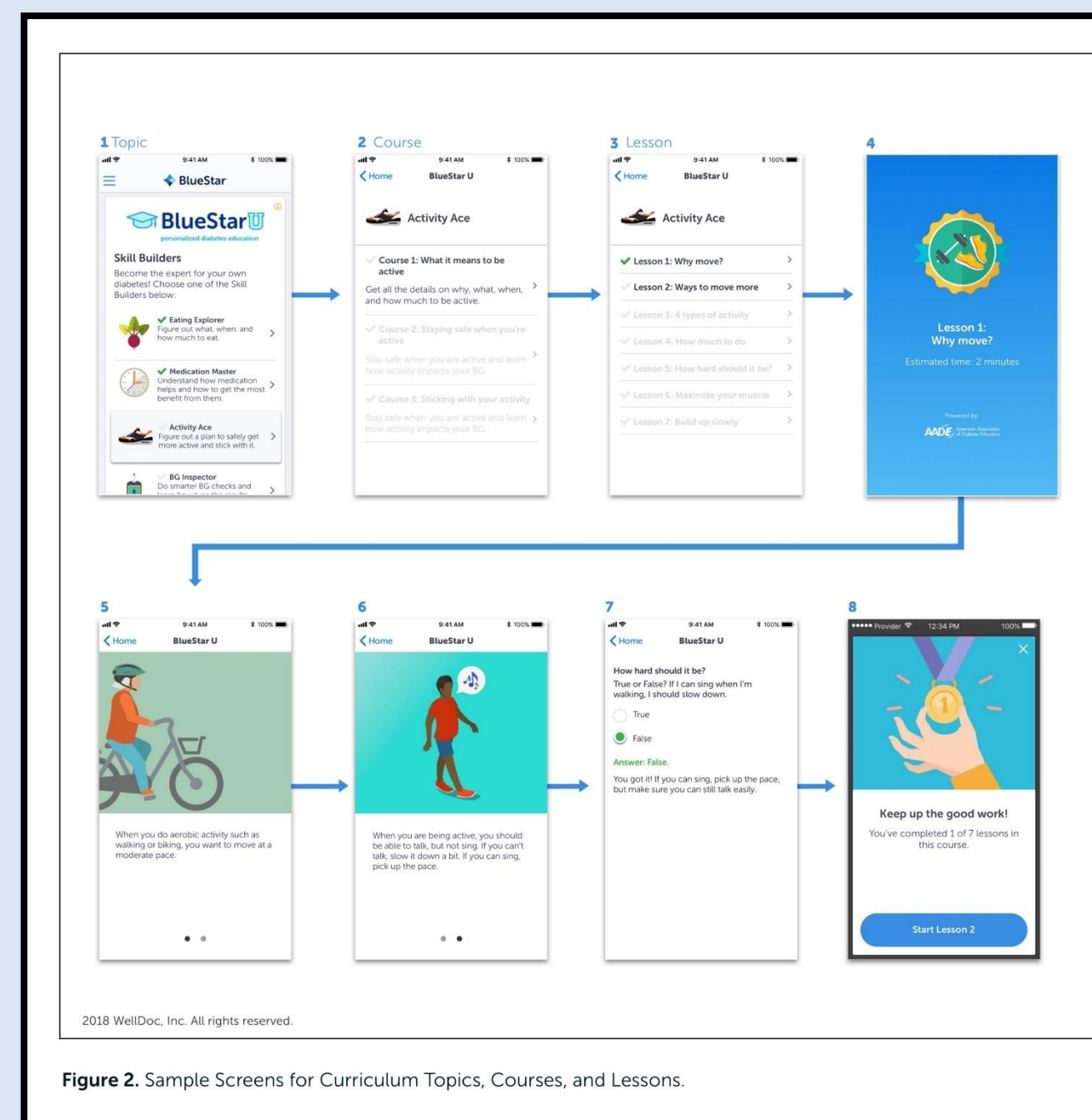
Sample Digital Curriculum Lesson

Figure 2. Sample Screens for Curriculum Topics, Courses, and Lessons.

BlueStarU — powered by AADE — offers short, contextual lessons written in plain language to make curriculum content easily digestible for the end user.

Initial Observations

Creating a digital curriculum for a mobile platform is a new way to deliver tailored, contextually-relevant content to people with diabetes. This new format may remove barriers of access and reach. In a preliminary survey, BlueStar users reported the most common source of diabetes education is their doctor/health care team, followed by diabetes education classes, pamphlets/handouts/brochures, and finally mobile apps/online sources. These findings indicate mobile apps and online sources may be underutilized and offer an opportunity for greater access to diabetes education. Encouragement from the health care team to use credible online sources and mobile apps could improve use of this format.

Implications

Digital delivery of diabetes education has the potential to increase the learner's interest and engagement, and to improve problem-solving skills for daily self-management. In addition, educators can benefit by supplementing traditional care with a digital model. Already, the Diabetes Digital Health Learning Network, created through a AADE-WellDoc partnership, is working to develop best practices for educators to leverage technology-enabled education services.

With the BlueStar model, diabetes educators can:
- Incorporate digital education into DSMES programs for reinforcement of learning and to increase access;
- View progress through the digital curriculum and support individual and population-based services; and
- Serve as a leader in integrating care team self-management activities with the overall treatment plan.

Ultimately, moving the AADE7® into the digital space provides a cost-effective, scalable model to leverage AADE's evidence-based curriculum on mobile devices that people with diabetes use.

References

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