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Innovative Use of the WordPress/RAMPAGES Platform to Improve Implementation of Active Learning Strategies in the VCU Child and Adolescent Psychiatry Fellowship Didactic Curriculum

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Introduction:

Adult learning theory, in combination with advancements in educational technology, allow for increasingly creative approaches to training in graduate medical education. [1-5] The VCU Child and Adolescent Psychiatry fellowship launched the Child and Adolescent Mental Health Online Curriculum in July, 2016 using the Wordpress/RAMPAGES platform with the following goals:

- Increase the use of flipped classroom, active learning strategies as the primary method of didactic education.
- Improve learning efficiency, retention, and improve performance on in-service examinations.
- Increase the facilitation of cross-disciplinary education including psychiatry and psychology trainees.
- Create a repository of key information and resources with continuous access available to all trainees.
- Increase collaborative teaching across faculty and learners through use of social media such as posts, blogs, etc.
- Increase faculty development in teaching through innovative strategies and the creation of model curricula.

Materials/Methods:

Our fellowship worked in collaboration with VCU SOM's instructional technologist to construct a Wordpress/RAMPAGES educational platform with the following advantages:

- Permanent pages for didactic series where core content is easily accessed (chapters, articles, cases, videos).
- Archivable, key-word searchable posts where single topics can be published.
- Blog spaces for resident/faculty discussion and comments.
- A multidisciplinary didactic calendar (embedded Google calendar).
- Quiz generation and analytics for targeted in-service examination review (GravityForms add on).
- Online journal club.
- Technology for tele-connection for off-site learners (appear.in).
- Materials for faculty development in active learning strategies.
- Site analytics to allow for targeted curriculum reform based on which resources are utilized the most/least (JetPack add-on).

Results:

Since the launch of the platform, the fellowship has been able to implement a number of flipped classroom, active learning strategies to the curriculum, including:

- Problem-Based Learning (PBL) Psychopathology Case Vignettes
- Process-Oriented Guided Inquiry Learning (POGIL) style didactic series in Neuroscience, Development, and Forensics
- Just in Time Teaching (JiTT) targeted in-service examination review series

Additional active learning strategies could also be easily implemented into a Wordpress/RAMPAGES platform include Team-Based Learning (TBL), concept-mapping, polls, etc.

Through use of the Wordpress/RAMPAGES platform, the fellowship has also been able to increase the number of multidisciplinary educational activities between our fellowship and the VTCC Clinical Psychology program, improving cross-disciplinary education to approximately 80% of the total curriculum.

Data on performance on markers such as in service examination scores and Board examination performance is currently pending.

Platform analytic data is currently in process, though initial data indicates modest use of blogs, mostly among fellows to post articles and commentary, as well as a moderate level of faculty developing active learning strategies specific to the content they teach.
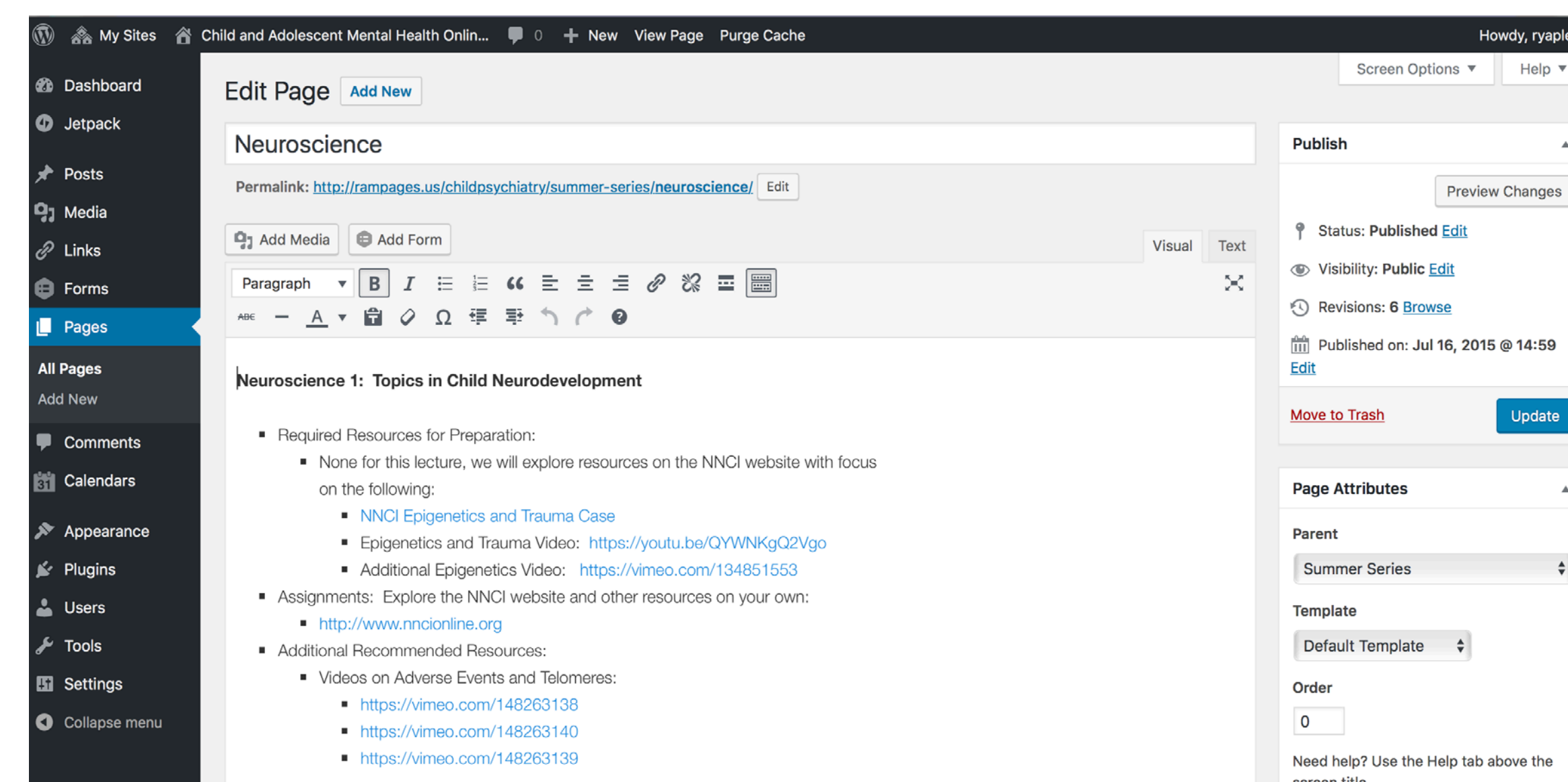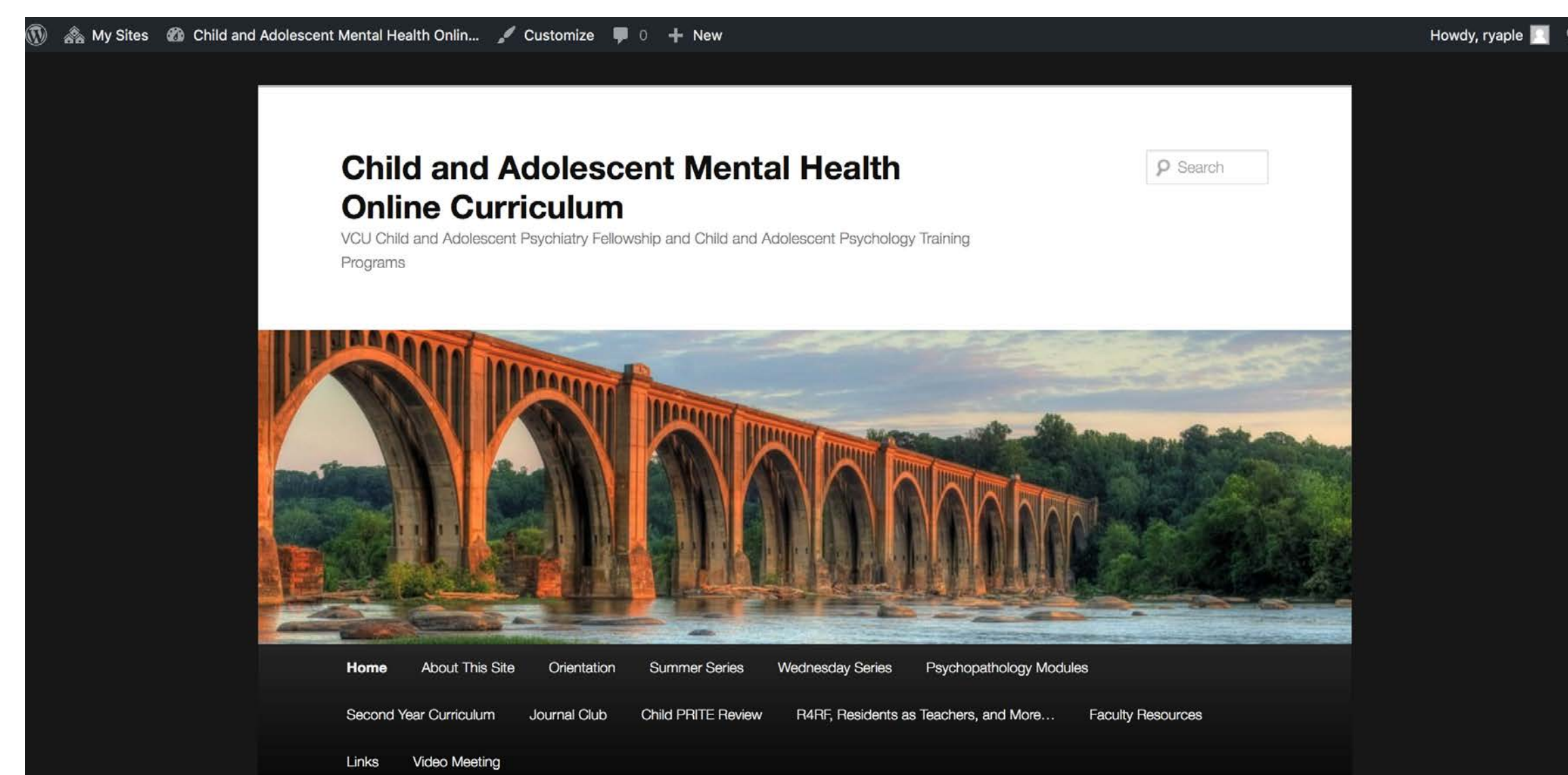
Conclusions:

The VCU Child and Adolescent Mental Health Online Curriculum, through use of the Wordpress/RAMPAGES platform, provides a unique and innovative mechanism through which active learning strategies can be employed for multidisciplinary graduate medical education:

- Strengths: Use of the Wordpress/RAMPAGES platform is supported by VCU, and the development of the site requires no cost, is time efficient, does not require knowledge of computer coding (skills required to utilize Microsoft Outlook are sufficient) and there is a very small learning curve. The platform can easily accommodate any learning strategy, content or resource. All faculty and learners with a "vcuhealth.org" email can gain access to the content. Active learning strategies for small and large groups of learners are easily implemented. Access to the platform can be public or private as determined by the program.

- Limitations: As with any transition in curriculum, time to develop resources is a rate-limiting step, and while implementation of strategies and resources into Wordpress/RAMPAGES is efficient, the largest cost is time to develop the educational curriculum itself. Additionally, occasional technical glitches can arise when technology combines with education, so a close relationship with the educational technologist would be of benefit. Time will be necessary to train faculty and learners to use the system, as well as for data collection and curriculum analytics. Application of this platform outside of VCU would be dependent on institutional support for the platform.

Acknowledgements:

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