

# Holy psychopathology Batman: The pedagogical use of comic books in the teaching of abnormal psychology

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*Many undergraduate psychology students eventually choose a career providing clinical mental health services. A background in abnormal psychology (psychopathology) is helpful and requisite in these graduate academic and future professional venues. The creativity needed to adequately teach the complex material covered in most abnormal psychology courses may be best conjured from the theory of pedagogical constructivism. Using constructivist theory, the present pilot study evaluates the efficacy of using comic books to supplement undergraduate abnormal psychology course material. Students who completed a diagnostic evaluation of a comic book character (N=29) performed significantly better on an abnormal psychology 'pop quiz' than students who received lecture-style instruction exclusively (N=15). These preliminary results add to the existing and expansive library of constructivist-inspired activities used in the instruction of abnormal psychology.*

**U**NDERGRADUATE STUDENTS who opt to pursue their degree in psychology discover an array of psychological subfields from which to choose their future career including industrial/organisational psychology, social psychology, experimental psychology, developmental psychology, and more. One such option available to students is clinical/counselling (CC) careers. With nearly three-quarters of CC graduate programmes requiring applicants to have taken an undergraduate course in abnormal psychology (sometimes called psychopathology), it comes as little surprise that 98 per cent of undergraduate psychology programmes offer such a course (Lawson, Reisinger & Jordan-Fleming, 2012; Stoloff et al., 2010). Additionally, the popularity among students of the abnormal psychology (ANP) course is demonstrated best by the fact that roughly 41 per cent of all undergraduate psychology students, regardless of their area of interest, take the course. This makes ANP the fifth most frequently taken course among undergraduate psychology programmes (Stoloff et al., 2010). Considering the course's importance and popularity, inquiries into how best to instruct ANP are necessary.

While enrolled in ANP, it is important for students to learn about the characteristics, prevalence, incidence, and etiologies of various psychological disorders as well as the typical means of assessment, classification, and treatment of said disorders. With the knowledge students gain in the course, they develop a more informed and integrative foundation from which to further construct their understanding of the severity, diagnostics, and symptomatology of mental illness should they choose to pursue CC graduate studies and/or a CC career. These are important topics to learn because diagnosis and evaluation remains a primary job function for CC professionals (Kress, Hoffman & Eriksen, 2010; Norcross, Karg & Prochaska, 1997). Although the course information alone is essential, equally so is the ability for the students to apply said information in a meaningful way; knowing the diagnostic criteria for major depression, for example, is only the first step in being able to evaluate a client and provide an ethical, accurate, and culturally sensitive diagnosis of major depression.

The best strategy by which to develop the students' knowledge and skills in this area may not be lecture and testing. It is possible

for students to lose interest in the subject matter in a class instructed exclusively in this manner (Tenenbaum et al., 2001). Therefore, it may be argued that students are neither fully comprehending, nor retaining, nor ultimately learning the material. Indeed, in such a format, students may be inclined to cram for an exam, holding the information only as long as is necessary to complete the exam. This may then prove detrimental to students who will need to utilise these materials in their future CC studies or professions.

Rather, a co-operative learning approach where students are encouraged to become more actively engaged in the material may be a more effective (and appropriate) technique for teaching the information found in an ANP course (Balsis et al., 2006; Tomcho, Wolfe & Foels, 2006). The pedagogical theory of constructivism may best suit such needs. Pedagogical constructivism posits that learning takes place as a result of exploration and questioning of existing knowledge, that learning occurs during the application of one's knowledge rather than prior to it, that learning is the result of participation in activities in which students would likely engage in the real world, that learning occurs through debate and discussion with peers, and that the students' consequent projects are highly unique and individualised (Alesandrini & Larson, 2002; Cook-Sather, 2008; Dewey, 1916). Assignments adhering to constructivist tenets often present problems in need of solving or a theme/topic to explore freely. A fundamental component of these assignments is to request and encourage students to critically reflect on and explore existing and alternative perspectives, to challenge students to take responsibility for their work and their outcomes, and to facilitate students in making personal meaning of the material (Cook-Sather, 2008; Dewey, 1916; Spronken-Smith et al., 2011). The objective of ANP courses – to understand and become rudimentarily familiar with the process by which CC professionals provide diagnosis – is an

opportunity to apply a constructivist model of education. The benefits of a constructivist teaching approach include students' stronger ability to process conceptual conflicts, greater feeling of the course meeting their needs, increased efficacy to ascertain pertinent client information, and strengthened problem-solving skills (Gijbels et al., 2006; Hampton, 2012).

A review of the literature revealed several successful constructivist-inspired methods of instructing ANP courses. Tomcho et al. (2006) utilised a group-interviewing technique to instruct the course. Students in the study worked together to interview a mock client, debate and discuss the differential diagnoses, and provide their best estimate of the diagnosis. Students overwhelmingly reported feeling as though this activity helped prepare them for the final exam, gave them new appreciation for the difficulties encountered by clinicians in arriving at a diagnosis, assisted in their learning of the disorders, and was enjoyable. Johnson (2004) presented similar findings. Students were asked to provide a diagnostic assessment of a famous person based on existing information (e.g. magazine articles, fan sites). Again, students reported preferring this assignment to exams and reported that the assignment heightened their awareness of psychopathology. Chrisler (1990), Perkins (1991), and Potkay (1982) each found similar results by asking students to provide a diagnoses for main characters from novels, historical figures, and popular song lyrics respectively.

Another popular constructivist technique used by ANP instructors is the use of film and movies to elicit conversation and dialogue. Students are shown film clips or entire movies depicting mental illness and are then encouraged to discuss possible diagnoses, treatment planning, and prognoses (Ramchandani, 2012; Wedding, Boyd & Niemiec, 2010). The use of such media, however, has been criticised for its potential perpetuation of stereotypes and its common exaggeration of psychiatric symptoms (Buda,

2010; Fitzgerald, 2006; Ramchandani, 2012). From a pedagogical perspective, films and movies may not serve as a sufficient catalyst to exploration and discovery for students enrolled in an ANP course because the diagnostic presentation of the character(s) is often straightforward and exemplary for a given psychological disorder. This allows for students to more easily arrive at a diagnosis. In such instances there is a lesser need to consider and subsequently rule out differential diagnoses – a common challenge for CC professionals.

The present study seeks to examine the efficacy of a unique and previously unexplored constructivist technique of instructing an ANP course: the use of comic books. A review of the literature yielded no documented use of comic books to supplement ANP instruction. Comic books offer readers the same visual component of diagnostics found in movies and film (e.g. facial animation and environmental context; Buda, 2010) sans the aforementioned drawbacks of such media. In this medium, the relevant symptomatology is not presented in as straightforward a manner, thus challenging students to begin to develop their own clinical acumen. Utilising a comic book character may ironically provide a more ‘real life’ experience in the process of assessing and diagnosing psychological disorders.

The purpose of the current analysis is to add to the existing body of constructivist approaches of instructing ANP. It should be pointed out that the objective is not to suggest that comic books are better or worse than any of the aforementioned constructivist-inspired techniques. The study simply seeks to determine whether the use of comic books is a viable option for ANP course instruction.

## Methods

### *Participants*

A total of 44 undergraduate psychology major students enrolled in two sections of an ANP course at a small liberal arts university in western Pennsylvania volunteered to partici-

pate in the study. The first author, a clinical psychologist, instructed the course. The authors conceptualised the current analysis as a pilot-study with a small sample and, as such, did not collect demographic data from the students. The student body of the university is 90.4 per cent Caucasian, 53 per cent male, and 99 per cent under the age of 25 (CampusDiscovery, 2014; Collegestats, 2014).

### *Materials*

**Comic Book.** Students received instruction to select a graphic novel, which is essentially a collection of monthly comic books, covering a complete story arc. The instructor provided a list of potential comic books for the assignment within the class’ syllabus. In addition, the instructor contacted a local comic book store and discussed the assignment with the store’s employees. As such, the store’s employees would also be able to offer assistance or advice to the students in the selection of a graphic novel appropriate for the assignment. The students were told to submit for instructor approval the graphic novel they wished to select.

**Assessment.** The instructor created a brief 10-item open-ended questionnaire in order to assess students’ knowledge regarding the diagnoses of psychological disorders using the *Diagnostic and Statistical Manual (DSM-IV-TR*; American Psychiatric Association, 2000), as well as the students’ knowledge regarding various clinical terms. The questionnaire took approximately 15 minutes to complete and scores could range from 0 to 10.

**Procedure.** The first section of the ANP course consisted of 15 students, constituting the control group. During the course, material concerning the *DSM-IV-TR* multi-axial system of diagnosis as well as a variety of terminology used in the assessment and description of various psychopathologies was discussed as part of the standard classroom lecture. Students were then tested on said materials by means of four regularly scheduled examinations scheduled throughout

the class. The week prior to the final examination, students were administered the aforementioned 10-item assessment instrument. The students were administered the instrument without warning, as if it were a 'pop quiz'. By administering the assessment so close to the formal course examination, it is more likely that the students reviewed the relevant materials while preparing for the exam, thus increasing 'pop quiz' scores and protecting against any possible floor effects in the current data.

The second section of the ANP course, taking place the following semester, consisted of 29 students and served as the experimental group. These students received the same instruction of material as the control group. However, after the first formal class examination, the paper assignment was discussed in class (discussed below). Though the project had been described in the course syllabus, it had not been addressed in class until this time. The paper was due the same week as the final examination. Like the control group, the same 'pop quiz' was administered during the week prior to the final exam.

**Assignment.** The project assigned to the experimental group directed the students to choose a character from their selected graphic novel, perform a mock clinical evaluation, and provide a written psychological report. This report was required to include at least the following information: (a) Client demographic information; (b) reason for evaluation/referral; (c) psychosocial history; (d) typical means of assessment, assessment procedures utilised, and results; (e) differential diagnosis and rationale for rule-out; (f) *DSM-IV-TR* multiaxial diagnoses; (g) justification of diagnosis; (h) case formulation; (i) prevalence and incidence; (j) currently utilised and preferred treatments for given diagnosis; (k) treatment recommendations; (l) prognosis and prognostic indicators. Students were encouraged to consult outside references to access and obtain needed information not found in the graphic novel (e.g.

consulting a character's fan page to determine a character's familial background).

## Results

An independent samples *t*-test was performed to determine if a significant difference exists between the 'pop-quiz' score of the control group ( $M=4.00$ ,  $SD=2.90$ ) and that of the experimental group ( $M=7.41$ ,  $SD=2.74$ ). The analysis revealed such a difference between the groups,  $t(42)=3.84$ ,  $p<.001$ . An effect size was calculated ( $d=1.21$ ) and represented a large effect (Cohen, 1988).

## Discussion

### Findings

The data show that students who participated in the constructivist-inspired activity of diagnosing a comic book character demonstrated an observable and statistically significantly greater knowledge of ANP subject matter than did students who were exposed to the same material in a lecture format. The true significance of this finding may not be statistical but practical instead. The students who were, by the nature of the assignment, required to engage in the material in an analytical and personal way demonstrated a convincingly better handle on that material than did those who were ostensibly asked to merely memorise it. Considering the importance of quality diagnostic skills in CC professionals, such a thorough understanding of the nuances and subtleties of symptomatology has a clear extension into the practical sphere of the students' professional lives (Trapp, 2008) – another hallmark of constructivist pedagogy. Overall, this assignment appears to offer unique and interesting means by which to aid in students' learning of abnormal psychology, adding to the existing library of constructivist methods of instructing an ANP course.

### Application

The version of the comic book assignment used in the present study was possible because of the authors' familiarity with that

medium. None of the students in the experimental group selected a graphic novel that the authors had not read. This will obviously not be the case for all ANP instructors. Possible alternative iterations of the assignment can include: (a) assigning one graphic novel (with which the instructor is familiar) to all students; or (b) providing an all-inclusive list of graphic novels (each with which the instructor is familiar) from which the students can choose their desired novel. These options reduce the time-consuming requirement that the instructor read a cornucopia of graphic novels prior to implementing this assignment in their classroom.

Additionally (and anecdotally), students in the experimental group participated in class lectures in a more critical and thoughtful way. This created an environment of debate and dialogue regarding ANP topics (e.g. differential diagnoses, theoretical perspectives of psychopathology). Not only was this enjoyable for the instructor, but it potentially further facilitated the students' engagement with the material. This, again, is both the goal and a side effect of constructivist pedagogy (Dewey, 1916; Spronken-Smith et al., 2011). Again, though, these observations are anecdotal and highlight an area of future empirical inquiry.

### **Limitations**

The findings of this study should be interpreted cautiously. All 44 students were recruited from the same small university in a rather demographically homogeneous region of Pennsylvania. This limits the generalisability of the findings. Additionally, although the same instructor taught both sections of ANP, no two classes are alike. Neither the mean course scores for the sections nor the academic year of the participants (i.e. freshman, sophomore, junior, senior) are available for analysis, preventing the researchers from stating with any degree of certainty that the two groups are homogenous in their academic performance and/or experience level. Additionally, although Levene's test of homogeneity

suggested that the groups' variances were equal ( $p=.62$ ), the unequal and small group sample sizes can create volatility in the data. Finally, the mean differences could be the result of differing time-on-task between the groups rather than the inherent qualities of the assignment. This, however, is a natural product of constructivist-inspired assignments. Despite these limitations, this analysis achieved its objective of determining whether or not the use of comic books is a viable option for instructing ANP courses. Further research on the effectiveness of using comic books and similar media to instruct ANP courses is necessary.

### **Conclusion**

The current study investigated a novel pedagogical approach to the teaching of undergraduate Abnormal Psychology. Analogous approaches demonstrated increased student comprehension of, retention of, and interest in course materials. The present analysis specifically evaluated the utilisation of comic books in the teaching and assessment of psychological disorders.

The reasons for selecting comic books as the medium through which to assess students' learning of the material are multi-fold. The overarching goal of this assignment is to afford students experience in the process of diagnosing psychological disorders. A number of more typical case studies (i.e. film and movies) were reviewed and considered. Said resources are too often 'textbook examples' of psychological disorders and, therefore, deemed inappropriate for the intended goal. These cases do not adequately challenge the student to explore his or her diagnostic skills. Another reason for utilising comic books in the classroom is that students could find this to be not only an educational endeavour, but an interesting and enjoyable one as well.

An additional benefit associated with this assignment is that it affords students the opportunity to experience and engage in clinical report writing. The manner of technical writing associated with a psychological

evaluation can be quite different from writing a standard research paper. It is an important skill acquired and developed by those who wish to pursue a CC career, yet there is seldom opportunity to practice this manner of writing in the undergraduate classroom.

For these reasons, the use of comic books to instruct ANP is considered in line with constructivist pedagogical theory. The benefits of this style of instruction are well documented and validated in the literature. Students exposed to constructivist-inspired classes gain a unique and indelible relationship with the course material – a more practically applicable relationship than experienced by students learning the same material in a typical lecture format (Dewey, 1916; Gijbels et al., 2006). There may actually be a stunting of the intellectual growth of individuals exposed to solely the latter style of instruction (Dewey, 1916; Freire, 1986). Future research on the use of constructivist theory in the instruction of ANP should continue to build on the success

of studies like the present analysis and those mentioned above. This may set the stage and a notable precedent for the use of pedagogical theory-inspired instruction in other undergraduate psychology courses (e.g. Eaton & Uskul, 2004). Similarly, the success of constructivist-inspired activities in undergraduate ANP courses can begin to inform research into comparably themed courses in graduate CC programmes (Nelson & Neufeldt, 1998; Paré & Sutherland, 2012).

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