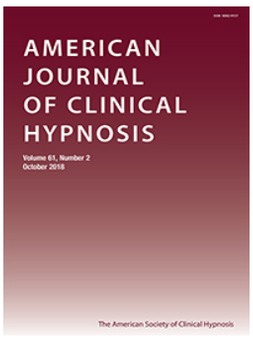

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Utilizing the Hypnotic Concomitants of Education: Suggestions to Enhance Teaching and Learning

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Clinical hypnosis for improving learning has been advocated by scholars dating back to the late 19th century. Empirical research seeking to validate its use has been supported particularly for real life applications, though less so in laboratory memory experiments. Suggestions for the use of waking/alert hypnosis suggestion for both highly suggestible students who experience more advanced and compelling phenomena associated with hypnosis, and students in general are offered. Suggestions for future research are also provided.

Keywords: education, learning, pedagogy, teaching

Hypnosis and Education

The use of hypnosis in dentistry, medicine, and clinical or experimental psychology has been well established for over a century. However, the applications may seem strange in educational settings. Indeed, hypnosis in modern education appears mostly as entertainment at proms and graduation nights in American high schools. It receives scant coverage in University psychology classes. Many secondary and post-secondary teachers are not clinicians. So, from the perspective of professional hypnosis societies, it would seem unusual, even inappropriate, if any teacher used hypnosis to facilitate the educational process.

Hypnosis, broadly defined, can come in many forms. Some people use an induction procedure that begins the hypnotic process. Others maintain that the mere response to a suggestion constitutes the experience of hypnosis (Mohl, 2013; Nash, 2005). This report takes the latter approach, and shows that hypnosis, or structured suggestions, can be a part of effective teaching.

Educational pioneers, dating back to the 19th Century, were enthusiastic about the potential uses of hypnosis to facilitate learning and improve students' personal development (e.g., Mason, 1911; Moll, 1897; Sidis, 1898). Clark (1900) saw suggestion as the critical element of teaching: "Education, in my opinion, is nothing else than a

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totality of coordinated and reasoned out suggestions. In education the teacher brings into the life of his pupil through suggestion a succession of images, which…determine progressively the lines of his life-development…The pupil's life is modified by presenting to him a conception of what he may be or do and an incentive for its realization. In this consists the whole art of teaching" (p. 32).

Krippner (1963) has held that successful educational practices are inherently hypnotic:

> …hypnosis in one form or another has long been an educational tool. Classroom teachers use hypnotic principles when they attempt to relax their students before starting on a difficult assignment. Athletic coaches who motivate their teams by delivering pep talks are utilizing another form of hypnosis. Instructors who use audio-visual aides or dramatize a situation are utilizing additional hypnotic techniques. Because hypnosis is a concomitant of the teaching process, it is likely that many educators have, without knowing it, used some form of hypnosis in many of their most successful pedagogical efforts. (p. 187)

Secter and Tremaine (1969) made the claim that the hypnotic process parallels teaching:

> Some generally held principles of learning have been stated. The statements hold even when the word 'hypnosis' is substituted for the word 'learning.' Teaching does not guarantee learning. [Likewise, a] hypnotic induction verbalization does not guarantee the development of hypnotic states. The process and the learner would seem to be of greater importance than the teacher or hypnotist. The latter's main function should be to create a favorable environment for learning and to help remove the obstacles to learning. When the resistances to learning are inoperative, induction of hypnosis takes place rapidly. (p. 191)

Mohl, Finigan, and Scharff (2016) described how traditional teaching processes could be either defined as hypnotic or, at the very least, viewed as different types of hypnotic phenomena. For example, Harvey and Goudvis (2000) promote the use of visualization to enrich lessons so that students can learn with all of their senses: "We have all read an article about a pie baking in the oven or a steak crackling on the grill…We can practically taste the meal. Well-written text allows us to taste, touch, hear, and smell images…when we read" (p. 137). Perceptual experiences in the absence of corresponding sensory stimuli are hallucinations, yet teachers and administrators reluctantly view it that way, given the stigma associated with hypnosis. Given that visual imagery exercises are practiced by nearly one-third of educators (Barry, 2002), mentally produced images, and the corresponding hallucinatory experiences they may foster in some students, demonstrate how commonly these phenomena may manifest in the classroom, even if teachers are unaware of it.

If suggestion is an integral part of education, then it ought to be harnessed to maximize both the effectiveness of the teacher and the probability of students reaching their fullest potential. This article outlines ways in which suggestion, given without hypnotic induction, can facilitate the educative experience for teachers and students. This report begins with a review of studies that have examined the effectiveness of

hypnosis for facilitating learning. Strategies are offered for teachers and students to take advantage of suggestion for learning improvement.

Literature Review

The use of hypnosis for the improvement of learning has been met with mixed results in research studies. Many non-successful studies were conducted in controlled laboratory environments, while many of the successful studies involved participants who were seeking a means of improving their academic ability or standing.

Laboratory Studies

Parker and Barber (1964) gave a variety of learning tests to participants of both high and low suggestibility. Suggestions for improvement in learning were given using hypnosis, task motivating instructions, or both. Hypnosis produced no greater effect in improvement compared to task motivating instruction, the latter of which produced improvement regardless of participants' suggestibility and whether they were hypnotized.

Swiercinsky and Coe (1971) administered a reading comprehension test to participants using alert hypnosis, task motivation instructions, or no intervention at all. No difference was found between the three groups, though the authors suggested that hypnotic training might be necessary in order to reap the benefits of suggestion from learning.

Edmonston and Marks (1967) found that neither hypnosis nor task motivational instructions affected performance on a kinesthetic learning task as operationalized by performance on a stylist maze. Edmonston and Stanek (1966) found that hypnosis produced no increase in learning a task that employed both meaningful and non-meaningful information. Rosenhan and London (1963) found that hypnosis hindered memory acquisition in highly-suggestible participants whereas it facilitated memory in low-suggestible participants.

West (2003) reported that hypnotic responsiveness had a significant negative correlation with academic grades, implying that those who had higher suggestibility had lower academic achievement. On the other hand, findings by Sweeney, Lynn, and Bellezza (1983) revealed no relationship between hypnotizability and learning using a paired associative learning task. Crawford and Allen (1996) assessed success with associative word tasks using hypnosis and non-hypnosis conditions with high and low hypnotizables. High hypnotizables recalled more words while hypnotized compared to their waking state, while hypnosis made no difference for low hypnotizables. However, responsiveness to hypnosis did not predict overall performance.

Mohl et al. (2016) gave medium and high hypnotizable students waking suggestions that a textbook passage was a fascinating and compelling read. While participants reported that the reading became quite interesting as the result of the suggestion, they did not have better reading comprehension scores compared to a control group who did not receive such a suggestion.

As (1962) reported a case of a man who, after being age-regressed, began to speak Swedish, a language he learned as a child but had forgotten as an adult. Fromm (1970) reported a similar case of a man who began to speak in his native, but forgotten, Japanese after being age-regressed. Campbell and Schumann (1981; see also Campbell, 1976) attempted to replicate this effect with 20 participants once familiar with a language other than English that was subsequently forgotten. None of the participants in the study were able to reliably produce their native language; however, the authors speculated that the lack of high hypnotic responsiveness among the sample might have impacted the results negatively. Schumann, Holroyd, Campbell, and Ward (1978) investigated whether hypnosis could aide subjects pronouncing words in the Thai language. Twenty participants with no familiarity with the Thai language were hypnotized and told that they would be able to pronounce words they hear with ease. The investigators used a within-subjects design, assessing pronunciation with a standardized assessment, in each of three conditions: before, during, and after hypnosis. Overall, no difference was found between the conditions, though the authors reported that hypnosis was slightly more effective in enhancing pronunciation among highly hypnotizable individuals. But a small sample size warranted cautious interpretation of findings.

One successful laboratory study was conducted by Hagedorn (1969) who provided posthypnotic suggestions to an experimental group of college-aged students. She suggested that material they were about to learn was interesting, they would recall it with ease, that their personal problems would not interfere with their learning, and that they would be free of distraction. A control group did not receive these suggestions. Both groups then heard a lecture in which famous psychologists were discussed. A test of free recall was administered after the lecture. The experimental group had a significantly higher recall score than the control group.

"Real Life" Studies

Laboratory studies may report lackluster findings given their limited intrinsic value to the participant. The results, which may be more interesting to investigators, as opposed to participants, may threaten the ecological validity of any findings. Suggestion is less likely to be successful without the intrinsic motivation of the participant, whose personal investment is more likely to lead to success (Mohl, Kumar, & Pekala, 2007). Two studies conducted by Jacobson and colleagues (Jacobson, Kramer, Tharp, Costa, & Hawley, 2011; Jacobson et al., 2013) lend support to this notion. In those studied, they found that participants in hypnosis during a lecture performed worse on a subsequent assessment of that lecture compared to a

non-hypnotized control group, leading the authors to question the appropriateness of hypnosis in education. Mohl and Davis (2014) commented that using hypnosis for potential educational gain should not be restricted to simply inducing hypnosis and providing simple suggestions for enhanced learning, as the potential effective use of hypnosis requires utilization of the participants' skills, talents, and abilities. When such studies involve the personal investment of participants and an application of hypnosis and suggestion that is specific to their needs, the outcome is more likely to be successful. The following studies seem to be more ecologically appropriate and documented effective and meaningful improvements that support hypnosis.

Schreiber and McSweeney (2004) found that a general psychology class that received hypnosis with the intention of improving examination grades had a significantly higher exam score than a control class. Çetin, Çimen, and Yetkiner (2016), using students learning Spanish as a foreign language, gave suggestions for enthusiasm, motivation, and greater focus following a hypnotic induction. Acquisition of Spanish words was greater for these participants compared to a no-hypnosis control group, both immediately following the study and one week later.

Payne and Friedman (1986) described a program in which 12 university students participated in a once-a-week hypnosis program tailored to their individual learning goals. Overall, the students made gains achieving the goals they set up for themselves, though the level of success varied according to the type of established goal.

Barrios (1985, 2001) developed a program in which high-risk community college students learned to use positive imagery and self-talk in order to gain greater confidence in themselves, reduce stress, and avoid outside influences interfering with pursuit of an education. It was based on hypnotic principles using terminology that did not include hypnosis due to the negative stigma it bears (Barrios, 1985). The program, consisting of three to 15 sessions, had students learn to connect their thought processes with their emotions using biofeedback. In doing so, they learned that they had greater control over their mental processes while learning a greater sense of self-efficacy. Once these tasks were mastered, they learned to apply these skills to controlling their emotions and concentration such as picturing themselves being more focused and accomplishing tasks efficiently and masterfully. The results were dramatic: 84% of participants in the program either applied to a four-year college or graduated with their Associates Degree, compared to 44% of those in the control condition (who completed a study-skills program). The participants had a greater average gain in grade points compared to those in the control condition.

Wark (1996) used an active-alert self-hypnosis protocol, in which suggestions for alertness and concentration were given in lieu of relaxation and sleepiness, to help college students improve their concentration in class. Participants were classified as low, medium, or high in imagery according to their responsiveness to the Creative Imagination Scale (Barber & Wilson, 1978). The results suggested that the technique was most successful for students who were highly imaginative: though they had the lowest initial GPA compared to their low and medium imaginative counterparts, they improved most during the course and significantly increased their GPA the next academic quarter.

De Vos and Louw (2006) assessed the efficacy of active-alert hypnosis (Wark, 1996), in which participants were assigned to one of four groups: two were experimental groups and two control groups. A hypnotic induction based on suggestions of alertness and energy was employed with one experimental group and traditional relaxation hypnosis with the other. Both groups then experienced protocols aimed at reducing stress and overcoming educational difficulties. Those in one control group simply experienced progressive relaxation exercises while the other was not provided with an intervention. Using participants' grades before and after the intervention over a period of two months, De Vos and Louw reported that that both forms of hypnosis significantly increased test scores over the course of two months compared to both control conditions.

Johnson and Johnson (1984) randomly assigned people who reported significant test anxiety to either a condition in which suggestions of relaxation and concentration were given prior to a reading comprehension task or a control condition where no suggestions were given. Both groups were then given a reading comprehension test and a learning-recall task. The experimental group outperformed the control group on the reading comprehension task, but no significant difference was found with respect to recall.

However, there is one report of an instance when "real-life" studies failed to produce an improvement in learning. Egan and Egan (1968) used hypnosis with participants for enhancing concentration, in addition to teaching self-hypnosis. It produced no benefit to participants in academic performance, using changes in grade point average, class rank, and motivation to study as operationalized variables, compared to a control group that received no hypnosis.

Applications of Waking Suggestions

Several approaches are provided in which suggestions given in the waking state can be used to facilitate the learning process. First, suggestions for advanced phenomena center on the utilization of the abilities of hypnotically talented students to produce experiences that can potentially enhance encoding of newly learned information. Second, use of self-hypnosis, presented later in this paper, focuses on self-administered suggestions. With this approach, students can craft their own suggestions, perhaps with the assistance of the educator, to improve their study habits, focus, and confidence in their abilities.

Suggestion for Advanced Phenomena

This approach is intended for certain students who have been identified as hypnotically talented (i.e., ones who are capable of producing some of the more striking phenomena associated with hypnosis). As such, they need to have been assessed for hypnotic ability, show that they possess the ego strength to experience such compelling phenomena in a controlled fashion without contraindication, and are able to become properly

alert and oriented to reality when such experiences are terminated, either by themselves or through the assistance of someone with proper expertise in the use of hypnosis.

Several techniques described below have been employed with college-aged students who have been identified as highly hypnotizable and have expressed interest in making use of hypnotic phenomena in their personal development. Other techniques have been employed by other authors, whose corresponding work will be described. Given the appropriate cognitive strategy, high hypnotizables are capable of producing advanced hypnotic phenomena without the assistance of a hypnotist, if only to lesser degrees (Mohl, 2016; Mohl & Davis, 2014).

Native Language Amnesia to Facilitate Second Language

A common barrier for a student who is learning a second language is native language interference, in which one's native language hinders retrieval of a word in the target language. Raikov (1992) described how high hypnotizable Russian students learning English were told in hypnosis that they were native speakers of English with no knowledge of their native Russian language. Notable improvements in fluency were observed that carried over following hypnosis.

In my work with highly hypnotizable foreign language college students, a certain level of fluency in the second language is required in order for this suggestion to have maximum impact. I have found that the words come much more easily to them, and increased fluency has been observed in those learning German (in which I have conversant ability and experience teaching at the basic and intermediate levels). When the suggestion has been employed with those who are fluent in the target language, they tend to report that they quickly adjusted to the second language. For example, an American with fluency in French reported that she would need a day or two in France or Quebec before "fully adjusting" to speaking French. When given the suggestion that she is a native speaker of French with no knowledge of English, it was as if she had already spent the requisite time in that part of the world.

Experiencing a Vocabulary Word by Suggestion

An established learning strategy in learning new vocabulary involves making the word personally relevant. Through the judicious use of suggestion, a student can experience the meaning of the word. For example, it can be post hypnotically suggested for a set amount of time, "whenever you hear, see, or say the word *beatific*, you will have for a few seconds a strong feeling of happiness." This also works well with foreign language acquisition, in which, for example, a student may get a chuckle when exposed to the German word *lachen*. Participants who have made use of these suggestions, including through self-suggestion, report it being useful, though it takes continued effort, practice, and focus to maintain the suggested effect. I have also observed that as the learner

becomes proficient in knowing the meaning of the word, the process becomes more internalized. The word "*Beatific"* conjures the memory of being happy without having to apply formally the suggestion process.

Suggested Dreams and Hallucinations for Problem Solving and Overcoming Creative Blocks

Barrios and Singer (1981) reported success with participants who were dealing with an artistic block. The students were informed in hypnosis that they would have a dream that depicting a scene that might provide possible directions for their creative pursuits. Most reported using what they dreamt as a means of inspiration. I have had similar success with the use of hallucinations. In one instance, a student reported having trouble with writing the opening to his thesis. I suggested that he hallucinate seeing himself one year later reading the beginning of his paper to his committee. He reported using most of what he "heard" in the actual report. This was inspired partly by Spiegel (1974), who wrote about a high hypnotizable's ability to generate ideas through hallucinatory visualization: "[A] New York playwright…visualizes a stage and…enters a trance state. He places three actors on his imaginary stage and, in effect, says to them: 'Go ahead; I'll listen.' After about five minutes, he…writes down what 'they' have done" (p. 308).

Personality Alterations for Enhanced Performance and Character Development

In addition to foreign language acquisition, Raikov (1992) described various ways in which suggestions for becoming a different person could facilitate performance of a learned task. Highly hypnotizable piano players were given the suggestion that they were Sergei Rachmaninoff. Chess players were told that they were the world champion Paul Morphy. Artists were given the suggestion that they were famous painters like Rembrandt and Picasso. In each instance, improved performance was observed in their respective crafts. Fowler (1988) used suggestions for actors to transform into their roles, reporting success in 25 out of 26 cases. Such an approach could potentially be used for readers to gain a new perspective of a passage that they are reading: by obtaining a first-person perspective of the scene and plot, they may be able to experience a story in a way that is otherwise not possible.

Suggestions for Enhanced Interest

While Mohl et al. (2016) failed to find enhanced reading comprehension measures by suggesting to high hypnotizables that they experience unusual interest in a textbook reading, qualitative reports indicated the technique could be useful when applied in appropriate contexts. Several participants in that study expressed serious interest in adapting that experience for their required college readings. In a follow-up study (Mohl,

2016), two highly hypnotizable people were given the suggestion that they would induce (and subsequently terminate) the experience of enhanced interest upon executing a self-selected cue before doing an assigned reading for a class. The effectiveness of the suggested effect did not decrease over the course of two weeks, in which participants employed its use at least ten times each. While such a suggestion might serve some benefit to medium and even low hypnotizables, it has the greatest benefit for "highs," making ordinary reading quite compelling.

Certain considerations must be taken into account when using suggestion in this manner. It is not suitable for group use, and should be used in a context where the student has a good rapport with the operator instructing the student. This is especially true for the student who does not have considerable experience with hypnosis. Even when they are disabused of misconceptions and acknowledge that they are in control of the process, some high hypnotizables might find the ease by which they can have such real, compelling, and initially bizarre experiences disconcerting. As such, the educator should take care to ensure that the student's exposure to the hypnotic process is gradual and always positive. The second approach, the use of self-suggestion, can be used to a much broader audience and on a group level, and does not require as much precise attention by the educator presenting the suggestion.

The Use of Self-Suggestion

Coué's (1922) auto-suggestive mantra, "Every day, in every way, I'm getting better and better" is an important principle in self-hypnosis. One of the most effective applications of suggestion, based on my observations as an educator, is for students to create an appropriate set of self-talk phrases. Although they may not know it, students are rather proficient in their use of self-suggestion, but their ability lies primarily in negative applications. Students will often, especially in times of high stress, utter phrases that indicate failure such as, "I am going to fail this test…I am not going to do well…I suck at this." Unfortunately, they are typically unaware of how that can affect their performance in school. When students become cognizant of their destructive use of self-talk, they become more receptive to ways in which they can employ positive suggestions for their personal development.

A demonstration offered to many of my classes helps students appreciate this principle. I ask them to stand up out of their chairs and then rate how easy it was for them to do so on a scale of one to ten, with ten being the easiest thing they have ever done. I then instruct them to tell themselves the same things that they might tell themselves when they have a pessimistic attitude about getting school work done, except this time to apply it to getting out of their chair: that they're unable to do it, that it's worthless, it's hopeless, that they have no talent, no ability, no penchant, and no potential to get it done. After about 30 seconds of this mental rehearsal, I ask them again to get out of their chairs. There is often a significant reduction in the ease of getting out of the chair, with some people reporting it being nearly impossible to do so. I then

instruct them to tell themselves to do the opposite: to tell themselves that they are good at it, they are masters of it, and when then they go to stand up, that they will feel the amazing ease, speed and power as they stand virtuosically. The result is an improvement that is even significantly greater than their baseline ratings of when they were asked first to stand up out of their chairs. For a follow-up I ask students to make personal connection by answering this question: if self-talk can affect a task as simple as getting out of one's chair, then in what ways does it affect your education?

Awareness of the type of self-talk is by itself insufficient to effect positive change, as students need to learn why they tend to use more negative than positive self-talk. One reason is that the former is much easier. A student who is sitting on the couch thinking about a project that is due next week must undertake a number of steps to complete the task: going to a desk, looking over the assignment, conducting background research, making an outline, typing up the paper, proofreading, writing references, and submitting the assignment. Each of these steps contains potential barriers that require different forms of self-talk to overcome. On the other hand, if students wish to motivate themselves not to do the project, all they need to tell themselves is, "keep sitting."

A second reason is that when students do attempt positive self-talk, it is usually does not address the necessary elements of achieving one's goal. Clinicians who use hypnosis for weight management know that a simple suggestion of "you will be at an appropriate weight" is unlikely to be effective. Suggestions must also be employed to tackle emotional issues associated with unnecessary eating, develop strategies when being in situations where excessive eating is encouraged, such as at a social gathering, and manage urges to snack unnecessarily. Likewise, the student who simply says, "I will ace a test" does not consider how to handle potential distractions when studying, stay relaxed and focused in times of stress, and overcome inevitable setbacks that occur in the course of one's education.

When students seek to develop appropriate positive self-talk strategies, I first ask them to identify their negative self-talk patterns and develop counter-suggestions to each. For example, students who say that learning a new concept is impossible can tell themselves that, "I can at least get the gist of it," thereby negating the impossibility of learning something about it. Students who tell themselves, "I will fail" can counter with, " I have the potential to pass if I take the necessary steps." Those who feel the urge to engage in an activity that distracts them from completing their homework, such as watching TV, or using a cell phone, can tell themselves, "I will enjoy those activities much more knowing that my assignments are completed." A second important aspect is to keep the self-administrated suggestions simple as they approach the overall goal. When presented with a long-term project, self-talking one's way through the various steps will more likely lead to greater success than simply focusing on achieving its end. For example, a student can say, "I will become proficient in learning the background information before proceeding to the next step." By learning appropriate self-talk strategies, students can use self-suggestion effectively in effecting their own improved outcomes.

Directions For Future Research

Many of these approaches are based upon anecdotes, case studies, and investigations with small sample sizes. Future research is needed to ascertain whether the potential benefits reported can be obtained using more standardized methodology. Above all, these are merely a series of techniques, and it is important to know which approaches work best with certain conditions. An important consideration, especially when dealing with the suggestions of advanced phenomena, is providing the appropriate training to instructors who may wish to employ such techniques in the event of any contraindication. While such risks are rare and are not exclusive to hypnosis (unintended consequences are known to manifest in visual imagery exercises [MacHovec, 1988] and mindfulness [Lustyk, Chawla, Nolan, & Marlatt, 2009]), proper instruction should be provided to any instructor who wishes to structure suggestions that are intended to enhance learning experiences of the student.

Perhaps the most important use of suggestion is that which is used by the teacher while instructing the students, not so much in the content but in the approach towards one's craft. Forel (1907) acknowledged the importance of this over a century ago:

> Above all, one must suggest in the atmosphere of the school an awakening of interest for the school to the children by means of love and enthusiasm…the old school system, on the contrary, often suggests antipathy for the school and teachers to the pupils. (p. 141)

Successful therapeutic suggestions require that the clinician administering them have a belief in their client's ability to effect positive change. The same is true for teaching. No suggestion that is given without passion or care for the profession of teaching will ever be communicated successfully to students. It is the zeal for teaching, the yearning to instill a zest for learning, and a genuine desire to see students succeed that form the most powerful suggestion around which all other suggestions are based.

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