EXPLORE PRINT

Effective Application of Team-Based Learning and Problem-Based Learning Strategies in the Graphic Communications Curriculum
by Sara Smith, D.Tech • University of Northern Iowa

About the Journal
The Visual Communications Journal serves as the official journal of the Graphic Communications Education Association, and provides a professional communicative link for educators and industry personnel associated with design, presentation, management, and reproduction of graphic forms of communication. Manuscripts submitted for publication are subject to peer review. The views and opinions expressed herein are those of authors and do not necessarily reflect the policy or the views of the GCEA.

Article Submission
Please follow the guidelines provided at the back of this *Journal.*

Membership and Subscription Information
Information about membership in the Association or subscription to the *Journal* should be directed to the GCEA Vice-President of Membership.

Reference Sources
The *Visual Communications Journal* can be found on EBSCOHost databases.
ISSN: Print: 0507-1658 Web: 2155-2428

Effective Application of Team-Based Learning and Problem-Based Learning Strategies in the Graphic Communications Curriculum

by Sara Smith, D.Tech. • University of Northern Iowa

Studies have shown the importance of soft skills for employees, and in particular those skills related to communication and working effectively with others (Fredrick, 2008; Scott-Ladd & Chan, 2008; Smith, 2014; Wood & Kaczynski, 2007). The idea of being a "team player" is not just a cliché; it is a valued ability by employers; (Fredrick, 2008; Scott-Ladd & Chan, 2008). For an educator, a concrete way to develop these skills in students is to implement Team Based Learning (TBL) and Project-Based Learning (PBL), in addition to content-based knowledge and technical skills development. There is ample evidence supporting the value of both TBL and PBL for various and diverse disciplines. TBL builds and strengthens abilities in students such as cooperation, knowledge development, critical thinking, social skills, life-long learning, and collaboration (Davidson & Major, 2014; Fredrick, 2008; Lamm, Dorneich, & Rover, 2014; Scott-Ladd & Chan, 2008). The hands-on, collaborative nature of a graphic communications curriculum lends itself especially well to these teaching and learning approaches. This paper provides a process for how teams can be formed to work effectively in a graphic communications course. In addition, it is combined with a PBL approach that is also an integral pedagogy for graphic communications curricula. Topics that will be addressed include: 1. Determining courses and projects that are a good fit for TBL and PBL, 2. Team formation strategies and methods for promoting cohesiveness, 3. Project management and workflow, and 4. Accountability & assessment with teams.

Course and Project Best Fits

There are many different theories and suggestions when it comes to choosing the projects and even courses that are best fits for the Team Based Learning approach. These include questions for determining which activities are best suited for teams, how to form teams, and many others. Some of these will be address here. In addition, the team-based strategy can be a whole-course approach or an individual module or project within a course. While Michaelson (2002) advocates a whole-course transformation to team-based learning, this paper will discuss a team-based project within a course that is not overall team-based. This is in the middle range of the continuum of team-based learning described by Dudek and Smith (2017).

In regards to choosing which projects and courses have the best chance of success for TBL approaches, various authors have put forth practical guidelines and sets of questions (Dudek & Smith 2017; Parmelee & Michaelsen 2010; Scott-Ladd & Chan 2008). Lamm, Dorneich, and Rover (2014) have created a list of "4 S's" to determine if an assignment fits:

Significant problem: teams should work on a problem that illustrates the usefulness of the course concepts in the discipline. These problems are often called application exercises by TBL instructors.

Same problem: teams should work on the same problem or question.

Specific choice: teams should be required to make a specific choice and defend that choice using course concepts.

Simultaneous report: teams should be required to report their answers simultaneously. This forces teams to commit to an answer and motivates them to be accountable for their decision since they will have to publicly defend it in class.

Fredrick (2008) has developed a series of questions to answer for determining if a project is a good fit for TBL:

As designed, is the project too big for an individual to complete without help? Do students have to work together to define, research, and write the project, or could they easily divide the project into individual parts that are then stitched together at the end? Does the project take into account the different skills and experiences team members bring to the project? Does the project schedule provide students with sufficient in-class and out-of-class meeting time in the earliest stages of a project (during brainstorming and preliminary planning), when students are most likely to negotiate their authority relationships?

The graphic communications project that this article will be discussing does fit the 4 S's and the majority of the questions. In addition, this author has found that TBL works well with upper level and capstone-type courses. Students in these courses generally have more experience and knowledge to draw from. Thus they can better contribute to team based activities. For the most part, students have previously learned the foundational skills necessary and the projects are designed to apply and take that learning to a higher level. The instructor will act more as a facilitator and students are required to do research and engage in problem solving. In fact, Michaelson (2002) describes this as one of the benefits of TBL, since it maintains the faculty member's enthusiasm. It can be very rewarding and interesting to watch the interactions between students – the way they push each other, the solutions they reach, and the ideas they generate.

The project that the TBL and PBL strategies have been applied to is creating a newsletter to promote the academic program of Graphic Technology to potential students and employers. This project has been completed in the same course eleven times over the past ten years. The author has implemented continuous improvement to increase the success of both the product and process. This project is a good fit for TBL in regards to the guidelines given previously. The characteristics that make it a good fit include: 1) it is too large for one student to complete in the time given, 2) a wide variety of skills are needed to complete the project, 3) each group is solving the same problem, 4) time will be needed both in and outside of class to complete it, and 5) the groups will all present their results (drafts and final) at the same time. In addition, the project fits well within the graphic communications field which by its nature includes inter-disciplinary teams. These include creative positions such as graphic designers and illustrators, and more technical positions as document layout, pre-press, and print production. The workflow and project management skills and knowledge needed align with the PBL approach. After attending professional conferences for twelve years, and speaking at length with colleagues, anecdotal evidence suggests that all graphic communications curriculum involve projects with various types of layouts, including newsletters. By focusing on a project that is relatively common within graphic communications curriculum, it is hoped that the author's recommendations and lessons learned can be easily applied to various projects for numerous educators.

Forming Groups and Promoting Cohesiveness

Forming Groups

This would be an opportune place to describe the characteristics of the project to which TBL and PBL have been applied. The context is an upper-level, face-to-face course. Within the major courses, it includes more "Application" in terms of Theory, Practice, and Application. For the project, each team is challenged with creating an 8-page newsletter which highlights and promotes the major program in which they are studying. As a group, they can decide to focus it towards one of two audience categories: potential students or a local business, i.e. potential employers. There is both required and optional

content. Some is created for them, and some will need to be planned and created by them, including photographs and interviews. In previous semesters, students were introduced to the project during the very first week of the 16-week semester, and it was not due until week fifteen. That was the case for ten out of the eleven semesters it was taught. Due to the fact that the students had solo projects to complete in that same time frame, and a large propensity for the majority of students to procrastinate, it was changed to begin in the eleventh week of the semester, and still due in week fifteen. That turned out to be too short of a time frame. Currently, the project will be introduced in week five and completed by week twelve. This will also include a more concentrated approach to project management strategies.

Another consideration for using a TBL approach for this project is the fact that the course is taken by majors outside of the program. In the past, they were not all required to have the same background and foundational courses as majors. Even now, their skills sets and experience vary widely. In addition, the department has a large number of transfer students from two-year programs, who get some of the foundational courses waived. This adds to the variety of experience and skills. These differences have also been noted by Whatley (2012, p. 77), "Students in higher education bring varying amounts of previous experience to the learning situation, depending upon their state of maturity, so collaboration between students is a means of sharing experience in relation to the problem to be solved."

Due to these facts, this author has developed a very careful approach to forming the groups. Michaelson (2002) supports the fact that "when relevant member assets, liabilities, and characteristics are evenly distributed, learning teams will work more effectively" (p. 29). In addition, "students do not intuitively have enough information nor the inclination to wisely form groups; therefore the teacher should be the one who determines how the groups will be formed" (Larry K. Michaelsen, 2002). In the past, the Group tool within the University's eLearning, Blackboard, was used to take a stab at forming the groups. With the Group tool, the instructor can choose either a manual or automatic process to have students assigned to groups, with factors such as number of groups or number of students in each group. After letting the tool automatically put the students in groups, they were reviewed and "tweaked" as needed.

It was definitely a less scientific approach. After becoming aware of the Twelve tips for effective Team-Based Learning (TBL) by (Parmelee & Michaelsen, 2010), it was realized that a better method was to "Create the teams thoughtfully: Make the process transparent, distribute resources as evenly as possible, and strive for groups with a diverse composition" (pg. 2).

Along with an instructor-driven, thoughtful process for assigning group members, the ideal number of members per group has various recommendations. This author has found that the ideal group size for the newsletter project is four members. Any more than that, and students can more easily abdicate all responsibility and let the others do the work. Any fewer, and there's a strong chance that some groups will be left with only 2 members doing all the work. This group size guideline is supported by Scott-Ladd and Chan (2008).

The process used for forming groups begins with a questionnaire given to all students to ascertain their strengths in both technical and soft skills as related to the project (see Appendix A). The content for the questionnaire is based on first determining the skills, knowledge, and characteristics that are needed to successfully complete this project. After students fill out the form, all the responses are entered into an Excel spreadsheet. Starting with those deemed most important, the Filter feature is used to first find all the students who have a higher level of skill in InDesign and layout, and those who identify as Leaders. These will be distributed so that each team has at least one member who ranks themselves highly in these items. The rest of the skills and characteristics are considered and lists are made for each, then the students are distributed as evenly as possible between all the groups. Finally, based on personal knowledge of the students from other classes and extra-curricular work, additional considerations are used. These include: those is most likely to miss class time (limit those to one per group), who needs to come out of their shell, who could bring someone out of their shell, who works well together, and who are best friends that need to be separated. That's the more subjective, less analytical part of group building – the art vs. science approach. While this may sound complicated or time-consuming, once the first few students are put into groups, it easily falls into place. There have only been a few times that groups had significant issues, which may not have been foreseen. This is only the forming stage

of the group. The proceeding steps and interventions can have a positive influence on their success.

Promoting Cohesiveness Among Members

For groups to successfully work together, students need guidance on teamwork strategies in addition to content related specifically to the project (Scott-Ladd & Chan, 2008). This requires a balance between class time spent on project/technical concepts and team building. The group strategies are not the same as those used in workplace settings, due to the difference in power and collaboration. There is more of a non-hierarchical nature in academia (Fredrick, 2008). Therefore, students need guidance in navigating their interactions with each other. Strategies that will be discussed are: team members investigating each other's strengths and experience, utilizing a creative thinking process, role-playing activities, off-site meetings, and instructor check-ins. There are also tools provided, such as worksheets and tables, for planning and communicating the work process.

As soon as the groups are announced in class, let them talk together. This is supported by research (L. K. Michaelsen, 2002) and also this author's experience in classes. There is a visible "pull" between group members when the list of teams is handed out. If time is not given immediately to discuss the project, they are uneasy. As indicated by Frederick (2008), social chatting within groups may be a way to cement the relationships so that they are able to better handle conflict and negotiations as they arise. It can help dispel anxiety about disagreeing with members.

A simple exercise for accomplishing this bonding is to have the students stand up and physically arrange themselves according to experience. They are put into the groups, then asked to line themselves up in order of how proficient they are with some of the Adobe Suite programs, from one to ten, with ten being the most proficient. They are told to look at the team members closer to the "ten end" of the line. These are the students they can turn to for assistance.

Students also discuss their past experience and work preferences in one of their first small-group meetings. Using a table provided by the instructor (Appendix B), team members each fill out their own information in a Google doc. This then helps them decide how to divide up the roles for the project. These include: Editor, Writer,

Photographers and Imaging, Layout Designer: Print, Layout Designer: Digital, Proofreader, and Production People (printing, finishing). Choosing roles will serve to assist in task assignments as they work on the project. These exercises reinforce the importance of having people with many different strengths on a team.

The students are also reminded of creative thinking activities from earlier in the semester. One exercise, known as "Hard and Soft Thinking", comes from Roger von Oech (1983, pp. 28-33). The main take-away is there are many different types of thinking, especially as they can be applied to designing and producing graphic communications products. In the beginning stages of a project, "Soft" thinking is more conducive for brainstorming, considering multiple viewpoints, etc. In the later stages of a project, "Hard" thinking is employed in order to make decisions and reach deadlines. Von Oech (1986) describes roles of the creative process in another book, A Kick in the Seat of the Pants, which apply very well to the stages of a graphic communications project. They are: Explorer, Artist, Judge, and Warrior. By introducing these roles and discussing how to apply them, it provides the group members another set of tools for interacting in a constructive way. In addition, the students have two solo design & production projects during the semester. They can discuss how they applied these roles to their own projects, including successes and challenges. The students have also read and discussed the importance of a creative process from a chapter in their textbook, "Hot-Wiring the Creative Process", by Curt Cloninger (2007). These concepts then prepare the students as they create their workflow and execute tasks to complete the newsletter project.

Another exercise involving teamwork approaches is based on role-play. This technique has been found by researchers to provide positive learning effects in higher education (Stevens, 2015; Bosse, Nickel, Huwendiek, Schultz, & Nikendei, 2015). Following the suggestions of a colleague, the following activity was created and then tweaked over the years that it was taught. The students in each group are assigned roles from the following list: Leader, Team Player, Slacker, Devil's Advocate, Peacemaker, Visionary, and Know It All. The roles and their descriptions are provided in Appendix C. Students are directed not to let anyone else know the role that they will be playing. In addition, they are told to completely play up the role as an exaggeration. The groups are all

given a task to fulfill. They are asked to plan the marketing materials for a fictitious but realistic event – Career Week. Generally, students who are leaders and were not assigned that role are very frustrated and uncomfortable during the exercise. There have been times when a leader fired all the others for not doing his bidding, one group did not have anyone as the leader, which resulted in a total breakdown and nothing productive happening. Other groups were very successful and managed to work through it to produce usable ideas. After completing the task, there is a discussion or debriefing. It is extremely important to save enough time for this discussion. Each person is asked how they felt about the role they were given, and what they would prefer to have as their role. Students are reminded that these roles do exist, they are needed at times, and that students can switch roles throughout the project.

This exercise, while being fun and lighthearted when they are doing it in class, tends to produce a much more cohesive group structure. In addition, they are shown that each role is not rigid – a person can contribute by at one time being a visionary and brainstorming, and another time being a leader or even a devil's advocate. In the post-project reflection paper, some students have described the way in which their group members took turns at these roles for the success of the project. Being able to acknowledge and verbalize the presence of these behaviors gives students a means of dealing with others in a way that might have been uncomfortable without this experience.

Getting the students to meet outside of the classroom can also be beneficial. To remove the excuses of schedules not matching up, class time is used for these meetings. They are required to meet at the library, a coffee house, or other location instead of meeting in the classroom. This is also a good strategy to ensure that productive work is being completed by the group, even when the instructor needs to be gone from class time for a meeting, conference, or other reason. Each team must provide a photo of who was present, and a brief summary of the discussion and subsequent action plan. This meeting introduces another level of accountability, as well as relaxed interaction between group members.

Finally, regular check-ins between the instructor and each group are conducted. These are announced ahead of time and listed in the eLearning schedule. The author has found benefit in one-on-one discussion with the

student, and asking about his/her part of the work. This increases the likelihood of understanding the level of participation from all team members when it comes to assigning grades. It also reinforces the idea of accountability to all members. This type of strategy is supported by Lamm et al. (2014, p. 1), "An important component of TBL course structure is the inclusion of frequent, timely, and varied types of instructional feedback to students." The check-ins provide a good opportunity for feedback and, if needed, course correction for the group's plans.

PBL Aspects – Project/Time Management & Workflow

One of the main characteristics of Project Based Learning is the construction of an artifact vs. creating meaning or solving problems together. The end result is just as important as the process (Rooij, 2009). To determine which projects are a best fit for PBL, Thomas (2000, as cited in Rooij), offers five criteria: "The project must be (a) central to the curriculum, (b) focused on questions or problems that drive learners to encounter and struggle with the central concepts and principles of a discipline, (c) a constructive investigation or goal-directed process that involves inquiry, knowledge building and resolution, (d) conducive to student autonomy, choice, unsupervised work time, and (e) realistic, focusing on authentic challenges where the solutions have the potential to be implemented" (Rooij, 2009, pp. 210-211). These criteria are met with a graphic communications project such as the newsletter. Not only does it require students to work together as a team, it also includes industry relevant concepts such as workflow and project management.

Within this course, students are first introduced to workflow as part of another assignment. They each design promotional materials, then fill out job tickets for another student who acts as their "service provider." During this project, diagrams are provided and discussed for the many steps involved in the workflow for taking a product from a concept or need, through all the stages of customer service, estimating, prepress, production, delivery, etc. These concepts are reinforced with the newsletter project utilizing checklists and a spreadsheet with due dates (Table 1). In the past, this has been an area that has had issues. The lack of consistency on the part of the instructor regarding due dates and check-ins, has meant that either students didn't take it seriously or

work was allowed to slide until the end of the semester. To counter-act these issues, for one semester a new project management approach was implemented. A student outside of the class, who had an independent study course regarding project management and supervision, met with each group to create a plan and have regular progress updates. Tools being utilized were a Gantt chart based on a Google sheet template, as well as worksheets to outline Project Scope and other key items. The students within each group worked to set the deadlines for all the milestones and sub-tasks, based on the final deadline for the completed and printed newsletter. These will be reviewed by the instructor. In addition, the project had less "competition" from other projects in the course, due to a re-working of the overall class project schedule. This allowed more time for the scaffolding activities discussed previously, such as role-play, identifying strengths, and others. However, utilizing a student from outside the class to assist will not always be an option.

Additional strategies that have been employed in some semesters, and found to be beneficial, include working with a local printing company. The print-ready files were sent to their Pre-press department, and pre-flight reports were provided to the students. This was very helpful for the students to identify issues such as missing fonts and low-res images. In addition, that company also agreed to print and bind the newsletters. Between the large-scale digital printer and the booklet maker, students were extremely happy to see their work output in a professional manner. In addition, one group discovered a design decision they made which created a major problem on the press. This example is used now to prevent additional students from making that same mistake.

The goal of these scaffolding tools is to provide accountability and model activities that promote students working together to progress in their projects. They are intended to counteract the too familiar refrain of many college students: "Due today? Do today." Instead, the students plan and execute their steps with guidance, setting their own due dates in order to have a completed newsletter by the final due date given. Rooij (2009, p. 211), "Scaffolding tools normally provided by the instructor include a topic overview and deliverable requirements…" provides research comparing improvements in the scaffolding tools and process. The author has developed and improved upon such tools for group and project management. These will now be discussed.

Table1: Sample worksheet for student groups to identify, assign, and manage tasks to be completed for the newsletter project.

Task/Item	Team Members	Week 1	Week 2
		10-Jan	17-Jan
Present Project to Class		X	
Create Work Groups			X
Position Organization			
Discussion of Articles			
Masthead Development			
Article Plan Development			
Photo Plan Development			
Layout Plan Development			
Interviews			
Photographs			
Write Articles			
Editorial Revisions			
Layout Newsletter			
Production of Printed Newsletter			
Production of Digital Newsletter			
Present Final Newsletter			
Instructor will see			
Article Ideas			
Masthead Design			
Article Plan			
Photo Plan			
Layout Plan			
Photo Check			
Article Check			
Layout Check			
Print Production Check			
Digital Production Check			

Accountability & Assessment

It would be so simple if a multiple-choice test could assess how well students meet the learning outcomes on a project. However, this is not the case. Fortunately, there are many tools that can be utilized for assessing both the process and product of a team-based project. These include: the project rubric, a self- and peer-assessment worksheet, class attendance, class check-ins, in-class observations, and a post-project reflection paper.

Firstly, the rubric for successful completion of the project is given to all students when the project is introduced. The majority of the groups have done well in this area. Even if it meant that one or two members of the team had to do the work themselves, a completed newsletter meeting all the criteria was submitted. Using a rubric coincides with a statement by Rooij (2009, p. 211) "Learners are deemed to have successfully demonstrated project outcomes if the module satisfies the rubric criteria published at the beginning of the course."

Secondly, the students are shown a worksheet at the beginning of the project that they will then fill out, at the end of the project, to evaluate their own and their team members' contributions. This can be found in Appendix D. It includes both a numerical rating system and written comments. Some students take this seriously and are very honest with their own and others' efforts. Other students simply give everyone high marks and do not write any comments. The students are told that only the instructor will see the comments. These worksheets have been helpful in learning more about student work contributions.

Student attendance is recorded in all classes. Points are given for each class attended, due to the fact that in-class work and engagement are critical to the success of both individual and peer learning. Class time is often given for the teams to work together. Therefore, student attendance during those meetings is considered as part of the project grade. In addition, the class check-ins and in-class observations of work affect the project grade as well. Watching students as they discuss their projects and use the lab for their work, it's easy to tell who the leaders are, how the work is being divided, the interactions between team members, and other indicators of success and challenges. The meetings and check-ins are a beneficial method of determining the students' contributions. These include: individual preparation

for teamwork, reliable class attendance, attendance at team meetings that may have occurred outside of class, positive contributions to team discussions, valuing and encouraging input from fellow team members, etc. (Larry K. Michaelsen, 2002)

To gauge the amount of technical and "soft" skills gained and improved on for each student, students also complete a paper which includes the 4Ps. These are: 1. Problem, 2. Process, 3. Product, and 4. People. This includes the design Problem they are solving, which is also the purpose or reason for the project, in their own words; the Process they used to solve the problem, and what they learned from it; the Product that resulted and evaluation of how well it solves the problem; and the People they worked with, including each person's roles. This paper provides a great deal of insight into each student's contributions to the project, what they learned, how well they worked together, and more. It also serves the function of students reflecting on what they have learned.

Conclusion

It is widely accepted that the ability to work successfully in teams and manage projects are necessary skills for future college graduates. Fortunately, Team Based Learning and Project Based Learning can be utilized in the graphic communications curriculum without making major changes. In addition, both strategies can be highly effective for both technical and soft skills development.

Successful team projects involve so much more than just putting students in groups. Instructors need to carefully form the groups, then provide a great deal of support and scaffolding for the groups to be successful and meet learning outcomes. A number of strategies have been provided for choosing a project or course to apply TBL and PBL methodology, to form groups, manage and improve group interaction, and evaluate the group and individual success. Two of the main recommendations are 1) Be very intentional in creating and managing groups, and 2) Make sure that the tools provided (worksheets, rubrics, charts) are accessible and easy to use. For example, a Google doc or spreadsheet template can be available from anywhere with an Internet connection. In regards to forming and managing groups, base it on competencies first, then characteristics. During group work, it's important to strike the right balance of guidance and independence. Finally, during assessment,

getting input from students is crucial, in addition to judging adherence to rubrics.

Ultimately, no one formula will work with all groups. The students bring varying levels of motivation, skills, knowledge, and abilities. But isn't that also what makes it exciting?

References

Bosse, H., Nickel M., Huwendiek, S., Schultz, J., & Nik-endei, C. (2015). Cost-effectiveness of peer role play and standardized patients in undergraduate communication training. *BMC Medical Education,* 15:183 DOI 10.1186/s12909-015-0468-1

Cloninger, C. (2007). *Hot-Wiring Your Creative Process: Strategies for print and new media designers*: New Riders.

Dudek, S., & Smith, S. (2017). Fostering a Teamwork Approach in Graphic Communications Curriculum. *Visual Communications Journal, 53*(1), 3–10.

Fredrick, T. A. (2008). Facilitating Better Teamwork: Analyzing the Challenges and Strategies of Classroom-Based Collaboration. *BUSINESS COMMUNICATIONS QUARTERLY, 71*(4), 439-455. doi:10.1177/1080569908325860

Lamm, M. H., Dorneich, M., & Rover, D. T. (2014, October 16–17, 2014). *Team-Based Learning in Engineering Classrooms: Feedback Form and Content Adds Value to the Learning Experience.* Paper presented at the The 2014 ASEE North Midwest Section Conference, Iowa City, IA.

Michaelsen, L. K. (2002). Getting Started with Team-Based Learning *Team-Based Learning: A transformative use of small groups* (pp. 27-51). Westport, CT: Praeger Publisher.

Michaelsen, L. K. (2002). *Team-Based Learning: A Transformative Use of Small Groups*. Westport, CT: Praeger Publisher.

Parmelee, D. X., & Michaelsen, L. K. (2010). Twelve tips for doing effective Team-Based Learning (TBL). *Medical Teacher, 32*(2), 118-122.

Reinholz, D.L. (2018): A primer on small group instruction in undergraduate mathematics, PRIMUS, DOI: 10.1080/10511970.2018.1471632

Rooij, S. W. v. (2009). Scaffolding project-based learning with the project management body of knowledge (PMBOK®). *Computers & Education, 52*(1), 210-219. doi:https://doi.org/10.1016/j.compedu.2008.07.012

Scott-Ladd, B., & Chan, C. C. A. (2008). Using action research to teach students to manage team learning and improve teamwork satisfaction. *active learning in higher education, 9*(3), 231-248. doi:0.1177/1469787408095848

Stevens, R. (2015) Role-play and student engagement: reflections from the classroom, Teaching in Higher Education, 20:5, 481-492, DOI: 10.1080/13562517.2015.1020778

Von Oech, R. (1983). *A Whack On the Side of the Head: How To Unlock Your Mind for Innovation*. New York: Warner Books.

Von Oech, R. (1986). *A Kick in the Seat of the Pants: Using Your Explorer, Artist, Judge, & Warrior To Be More Creative*. New York and Toronto: Harper & Row.

Whatley, J. (2012). Evaluation of a team project based learning module for developing employability skills. *Issues in Informing Science & Information Technology, 9*, 75+.

Wood, L., & Kaczynski, D. (2007). University students in USA and Australia: Anticipation and Reflection on the Transition to Work. *International Journal of Employment Studies, Vol. 15, No. 2, October 2007*

Visual Communications Journal Submissions Guidelines

Submittal of Manuscripts

» All manuscripts must be received by the editor no later than **December 15th** to be considered for the spring Journal or by **June 15th** to be considered for the fall Journal.

» Submit papers and correspondence to: Gabe Grant <gjgrant@eiu.edu> or check www.GCEAonline.org for contact information for the GCEA Vice-President of Publications.

Types of Articles

» The *Visual Communications Journal* accepts four levels of articles for publication:

» 1. Edited articles are accepted or rejected by the editor. These articles are not submitted to a panel of jurors. The decision of the editor is final.

» 2. Juried articles are submitted to the editor and are distributed to jurors for acceptance/rejection. Juried articles are typically reviews of the literature, state-of-the-art technical articles, and other nonempirical papers. Jurors make comments to the author, and the author makes required changes. The decision of the review board is final.

» 3. Refereed articles are submitted to the editor and are distributed to jurors for acceptance/rejection. Refereed articles are original empirical research. Jurors make comments to the author and the author makes required changes. The decision of the review board is final.

» 4. Student articles are submitted by GCEA members and are accepted/rejected by the editor. These articles are not submitted to a panel of jurors. The editor's decision is final. Please be aware that poorly written student papers will be rejected or returned for editing.

Eligibility for Publication

» Members of the Graphic Communications Education Association, or students of GCEA members, may publish in the *Visual Communications Journal*.

» Those wishing to publish should join GCEA before submitting their paper for review.

Audience

» Write articles for educators, students, industry representatives, and others interested in graphic arts, graphic communications, graphic design, commercial art, communications technology, visual communications technology, printing, photography, or digital media. Present implications for the audience in the article.

Manuscript Form and Style

» Prepare manuscripts according to the APA style.

» Submit your paper in Microsoft Word format.

» Call out the approximate location of all tables and figures in the text.

» List your name, highest degree, affiliation, and title on the first page only. Article text should begin on the second page.

» Please proofread carefully before submitting.

Figures (Graphics)

» Number and write a caption for each figure. Include captions in a list at the end of your Word document.

» Screen captures should be as large as possible.

» Photos should be about 300 ppi to span one column (3-inches) or 2 columns (6.5-inches).

» Line art should be in a vector format.

» Tables will be formatted by the designer to fit in one column (3" wide) or across two columns (6.5" wide).

Tables

» Set up tables in separate Microsoft Word documents, one document for each table.

Publication and Format

» The *Visual Communications Journal* is published and distributed twice a year, in the spring and in the fall. Each article of the *Journal* is published online at www.GCEAonline.org. Provided there are at least 24 pages of content, the *Journal* will be printed and mailed to GCEA members.

Notice of Limitation

» Articles submitted to the *Journal* cannot be submitted to other publications while under review. Articles published in other copyrighted publications may not be submitted to the *Journal*, and articles published by the *Journal* may not be published in other publications without written permission of the *Journal.*