

# THE COLOUR CARD GAME

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## ABSTRACT

This paper is the outcome of a dialogue between two lecturers in the visual arts from universities in Queensland and Western Australia. The Colour Card Game is a tool for teaching creative colour exploration to a wide variety of students from different educational disciplines and from different cultural backgrounds. The aim is to engage students in a way that is not intimidating, requires no special skills or preparation, and with any value judgements coming from the students rather than from the teacher.

The game is played with commercial paint sample cards that are freely available from paint and hardware stores. The object of the game is to produce unusual colour combinations that 'work' (are considered creatively harmonious). There is an element of chance in the distribution of colour cards, and opportunities for players to exchange cards that they find unworkable. At the conclusion of play the colour combinations are displayed and players vote for the ones they consider most successful. The game provides the opportunity to discuss different approaches to colour combination: reliance on one's own judgement, application of established theories of colour harmony, making use of the findings of research and using chance processes to open up a wider range of possibilities. Students learn to look at colours with fresh eyes and to escape from personal limitations, prejudices, rules and the dictates of fashion. They explore unfamiliar areas of colour space and discover how colours actually interact. The game has been played successfully in the classroom and in social situations. Players enjoy the game; they find it challenging, stimulating and often revealing of personal tastes in colour. The paper describes the game's development, purposes and applications within the teaching context, variations of play and possible future developments.

**Keywords:** Colour education, colour games, chance, colour interaction, creative colour combinations

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## INTRODUCTION

The first version of The Colour Card Game was developed by Robyn Peacock-Smith for her elective course on colour at Griffith University's Queensland College of Art. She presented her ideas at the Colour Society of Australia's conference in September 2007. Paul Green-Armytage, in the audience, was struck immediately by the educational possibilities of the game. After discussion with Peacock-Smith he developed a version of the game to be played at a workshop conducted by the division of the Colour Society in Western Australia.

## BACKGROUND

The circumstances in which colour is taught have changed. Student groups are more diverse and traditional techniques are being superseded.

### Students

~~One of the authors has been teaching colour for more than 20 years. At the beginning of this period creative education was siloed into specific disciplines, so colour was~~ Colour used to be taught within

narrow disciplines ~~eg-such as~~ graphic design, interior design and fine art. But the very nature of 'creativity' is no longer prescriptive. Instead programs now offer, and encourage, mixed degrees, as a way of meeting the increasingly diverse range of careers, ~~and~~ students ~~look-demand~~ for degrees with course content to meet their specific outlooks and expectations.

Over the past 20 years Australia has increasingly become a study destination for students from many overseas countries. This necessitates a teaching approach that is equally valid and comprehensible beyond the intricacies of language. Colour, as a subject, also has a place in many disciplines beyond the traditional creative areas of art and design. An increasingly diverse body of students, as far removed from the traditional creative areas as nutrition, business and accounting, also recognise that colour plays a role in their professions. In addition, the student mix often represents individuals at different stages of their education – from first to third year, honours and masters levels. Such student diversity ~~is a worldly strength~~ **enriches the classroom** but **is** also an educational challenge: how to present information and material to such a diverse group, in a way that is instantly and constantly engaging, and with activities that are non-threatening for students with a limited art background. ~~These students, who~~ should not be made to feel intimidated or inadequate.

## Media and processes

In the past the common approach to exploring colour required the use of paints. For a diverse group of students, who need to be captured by the subject, paint can be a frustrating obstacle. Paints are expensive, new skills must be acquired, and painting can be a slow process. Furthermore, for designers who might once have relied on paint, computers have become the main tool for visual expression. But computer programmes, like painting processes, take time to master. Something simpler is needed.

Like Josef Albers<sup>1</sup> before them, both authors have made extensive use of coloured papers. The paper samples in the colour education kits produced by the Scandinavian Colour Institute<sup>2</sup> are used to introduce concepts of hue, nuance and lightness and are very good for helping students to see clearly and accurately. The comprehensive range of Pantone® papers and purpose-designed computer-generated sheets with a wide range of colours have also been used for introducing specific concepts but also for free exploration. In addition, both authors have encouraged students to use the sample cards for house paints that can be collected from paint and hardware stores. It is these cards that were first used for The Colour Card Game.

## THE COLOUR CARD GAME AS PLAYED IN QUEENSLAND

### Origins and first versions of the game

The Colour Card Game had its origins in a simple class activity. Students were asked to make a random choice of nine colour paint samples from an extensive collection provided by the lecturer. They were then asked to explore three unusual and unexpected combinations of three colours together, varying the proportions of each until each combination looked 'right' (figs 1, 2).

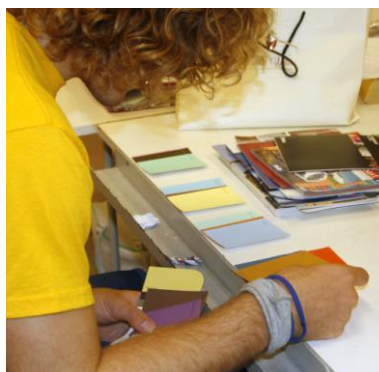


Fig 1 Example arrangement of three overlapping paint sample cards

Fig 2 Student exploring colour combinations in an early form of The Colour Card Game

The exercise was designed to support the concept that rules and laws of colour arrangement should never be taken too seriously or remain unchallenged. While there may be ‘natural laws’ of colour harmony, which are interesting and valuable to study, complete and unquestionable acceptance of these may result in the neglect of one’s own personal colour sensibilities. Students began to explore their own intuitive sense of colour. With no preparation needed before class, and no special skills required, students could begin immediately to appreciate how every colour in a combination affects every other colour. Discussion of each other’s work increased the colour experience, promoted a sense of community and demonstrated the value of learning from each other.

A later extension of this activity was a richer exercise in colour proportion and juxtaposition. Students obtained three large colour samples from a paint or hardware store. In class they were instructed to cut each colour sample into equal quarters, then explore arrangements and proportions, and observe the changing colour characteristics. The aim was to demonstrate that colour selection was only one step in the process, as juxtaposition and proportion also have significant effects (fig 3).



Fig 3 Paint sample cards cut into four and overlapped in different ways to explore the influence of juxtaposition and proportion.

### The 18 Colours Game

Following the success of the original game, which students had found challenging and enjoyable, the ‘18 Colours Game’ was introduced. Students collected 18 different, large colour swatches from a paint or hardware store. Instructions were as follows:

Shuffle the cards then place them face down in a stack in front of you. Pick up the top nine and try to make three ‘creatively unusual’ trios of colour, swapping the order and proportions of each colour within the trios. When a colour seems to be ‘unworkable’ the card can be returned to the bottom of the stack and replaced with one from the top. When satisfied with your three trios display them face up on the table. Pick up the next nine cards and repeat the process, but this time an unworkable card is passed to the person on your right, who must immediately either pass on the card received or one of their own, until all members of the group have passed on a card and received a replacement. Re-evaluate your ‘hand’ and continue this process until you can lay down your second three trios. When all have laid down their trios, walk around the room and look at others’ combinations. (Each student is given three ‘votes’ in the form of Post-it Notes.) Stick Post-Its on the table beside your three favourite trios. When all have voted, discuss and analyse the trios that received the most votes. For your own resource, keep and analyse your favourites from your own three sets.

What began as an exercise for individual students evolved to resemble something like a card game with interaction between the players. While a student may be happy to get the most votes, all should recognise the element of chance in the process and the fact that there is no outside authority beyond the group itself for which trios are to be considered most successful. No colour combinations are ‘right’ or ‘wrong’ and the game should be fun. Nevertheless, in the activity itself, in the voting and in the discussion, there is essential learning. It was observed that students also made notes of combinations, outside their own, that they found visually exciting and wanted to recreate for their own

reference. This was then encouraged with each subsequent playing of the game. Colour associations such as ‘this would be really great for ...’ were also overheard.

### **The 27 Colours Game**

The game evolved to include a further nine cards, and has stabilised (for now) as ‘The 27 Colours Game’. This allows for increased choice, greater challenges, and richer diversity of outcomes. Students commented that it was harder to play than they imagined, but a lot of fun nonetheless. Analysis revealed the most popular combinations appeared to share similar characteristics. Two of the three cards were related in some way (eg two light, two warm, etc) with the third providing a distinct contrast (eg dark, cool, etc). This was considered by the students to be an expression of dynamic visual balance, achieved through similarity *and* contrast of colours.

### **Cards for the game**

Like the rules of the game, the ‘deck’ of colour cards has also taken several forms during the years of play. This year there were more specific instructions about the range of colours to be collected by each student, as previously some collections haven’t varied sufficiently to challenge the students and produce innovative outcomes. Students were requested to collect equal representation of the following: warm, cool, light, medium and dark colours in the categories of ‘brights’, ‘tints’, ‘shades’, ‘greys’ and ‘neutrals’. For the purpose of fine-tuning the game Peacock-Smith made a specific selection of colour sets for students to test and offer constructive comments at the end of the game. Further testing confirmed that Peacock-Smith’s selection of colours, which included relatively more ‘bright’ colours, resulted in trios of colours that received the most votes. This range allowed for creative outcomes that many students found interesting and appealing.

### **Applications**

The Colour Card Game is now played as an introduction to an assignment, on colour in the commercial environment, where students choose a topic relating to their own area of major study. In the discussion following the presentation of the assignment work many students reported that they had ‘stepped outside their comfort zone’ and experimented with unusual colour combinations. This was attributed directly to the experience of playing The Colour Card Game.

## **THE COLOUR CARD GAME AS PLAYED IN WESTERN AUSTRALIA**

Rules adopted for The Colour Card Game in Western Australia are closer to the rules of conventional card games such as Poker and Rummy. The game has not been played in the context of a formal course on colour, but in more social situations – in one-off workshops for community groups. The first opportunity to play was at a workshop for members of the Western Australian division of the Colour Society. Participants did not know what to expect and were not required to do any preparation.

### **The cards used for the game**

The game was played in groups of six with decks of 73 cards. In the absence of suitable paint sample cards a computer generated range of colours was printed and trimmed to the size of typical standard playing cards: 89 mm x 58 mm. The colours were matched approximately to samples in the atlas of the Natural Colour System<sup>3</sup>: eight nuances (colours that were light, dark, dull, vivid etc) of each of eight hues (Y, Y50R, R, R50B, B, B50G, G and G50Y) and a range of nine greys.

### **Rules of the game**

Nine cards were dealt to each player. The remaining cards were placed face down as a stack in the middle of the table. The objective was as for the original game: to produce three ‘creatively unusual’ trios of colours. When the players had tried different colour combinations with the cards in their hands

they passed up to three unwanted cards to the next player. One player's unwanted cards could be very useful to another player. After further exploration of the new possibilities there were opportunities for players to fine-tune their hands. They took turns to take a card from the stack and discard an unwanted card from their hands. After three rounds of this the players had to make final decisions. The chosen colour trios were laid down, each one on a separate sheet of white card. Players could help each other with suggestions about the order and proportions of the colours in each trio.

### **Voting for the most successful combinations**

The voting process was as for the original game described above, except that the groups moved round the room and cast their votes on the trios produced by members of another group. Trios that received two or more votes were displayed and numbered. Later there was a second round of voting, where people were asked to nominate the three they considered to be most 'harmonious'. Votes were counted and results discussed. Some of the colour combinations displayed for voting are shown in fig 4. Textile artists playing a later version of the game are shown in fig 5.

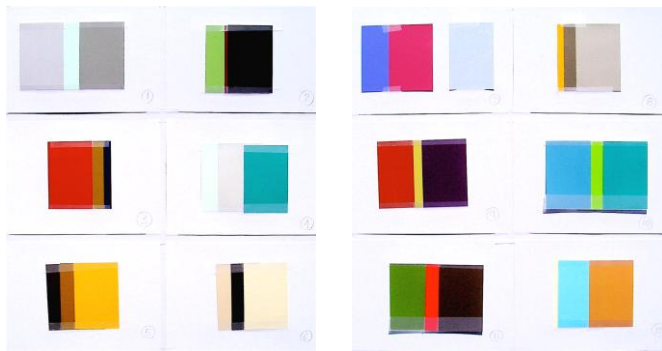


Fig 4 Colour combinations displayed at the Colour Society workshop in Western Australia. Participants voted for the trios they considered most harmonious. Most votes were received for the trio at top left.



Fig 5 A later version of The Colour Card Game being played in Western Australia during a workshop for textile artists.

### **THE COLOUR CARD GAME AT AIC 2009**

The authors hope The Colour Card Game can be played during the AIC 2009 Congress. There will be a new version of the game following further trials of alternative rules and feedback from friends and students. The game will include an opportunity for players to exchange some cards in their hands for cards displayed face-up on the table.

### **POSSIBLE VARIATIONS ON THE GAME FOR THE FUTURE**

As with a regular deck of playing cards, there are many possible objectives and rules for The Colour Card Game. Players could all play with the same sets of colours, and compare the resulting combinations for similarities or any repetition of outcomes. Pairs of players could collaborate on refining and producing outcomes. Cultural difference could be utilised or emphasised. A variety of rules could be offered and chosen by those who are playing. A solitaire version could be played by individuals. The game could be used to generate colour combinations for solutions to given colour problems eg 'a colour palette for a poster about ... , or a room for ... , or a fabric for ... ' or the representation of emotions, music or environments. Packs of cards could also be designed to help students learn particular colour concepts with games modelled on Dominoes or Happy Families in which players would try to collect, or match, colours of the same hue or same nuance. Versions of The Colour Card Game could also be developed for the Internet. Colour rectangles, representing cards, could be displayed on the screen by a random process from a range of colours similar to that in the pack of colour cards. Players would be able to explore colour combinations in much the same way as they can in the card game. A playing partner could be found, regardless of their physical location.

Outcomes could be posted and voted on, and a ‘running score’ kept. A blog could be established as a repository for interesting outcomes.

## **DISCUSSION – APPROACHES TO COLOUR COMBINATION**

Artists, designers and others have brought a number of different approaches to the task of combining colours. Some have relied on their own judgement, some have based their choice on established theories of colour harmony, some have based colour choice on the findings of research, and some have made use of chance. All these approaches can be introduced through the Colour Card Game.

### **Self-reliance**

Henri Matisse<sup>4</sup> did not base his colour choice on “scientific theory” but “on observation, on sensitivity, on felt experiences.” He describes how he constantly monitored the colour relationships as he worked on a painting and explains how these relationships change with each new colour. This can mean that existing marks must be altered: “A new combination of colours will succeed the first ... I am forced to transpose until finally my picture may seem completely changed ...” (pp 37-8). Vincent van Gogh<sup>5</sup>, another great colourist, also relied on his own judgement: “... instead of trying to reproduce exactly what I see before me, I make more arbitrary use of colour to express myself more forcefully.” (p 390). The Colour Card Game allows players to rely on their own judgement and to express themselves. They may also learn to appreciate the way that colour relationships change as new colours are introduced.

### **Theories of colour harmony**

Many prefer to rely on some higher authority in their choice of colour combinations and look to theories of colour harmony for guidance. The ideas of Johann von Goethe<sup>6</sup> have been enduringly influential. Goethe saw in after-images “... a natural phenomenon immediately applicable to aesthetic purposes.” (p 320). The phenomenon of after-images is one way of defining complementary colours. Complementary colour pairs are typically placed opposite to one another in a colour order system and such systems have been developed specifically as frameworks within which harmonious colour combinations can be found. Wilhelm Ostwald, quoted by Egbert Jacobsen<sup>7</sup>, claimed that an orderly arrangement of colours from within his system would be harmonious: “Harmony equals order”. Colour combinations proposed by players of The Colour Card Game can be placed within a system such as Ostwald’s to see if the players have intuitively produced a colour combination that is ‘orderly’ and, therefore, ‘harmonious’.

### **Research**

Not all colour combinations are designed to be harmonious; many are intended to communicate specific information or ideas. Lars Sivik<sup>8,9</sup> has investigated the connotations of single colours and colours in combination. Shigenobu Kobayashi<sup>10,11</sup> based his Color Image Scale on extensive research; his publications can be used as a guide by designers. There are many alternative objectives for players of The Colour Card Game. If the objective of a game were to be colour combinations to communicate an idea such as ‘friendliness’ the combinations judged most successful by the players can be compared to the ‘friendly’ colour combinations in the Color Image Scale to see whether the judgement of the players corresponds to the findings of Kobayashi’s research. In this way The Colour Card Game can itself be used as a vehicle for research.

### **Chance**

Many artists have experimented with chance processes. The works of Ellsworth Kelly, Robert Rauschenberg, Damien Hirst, Gerhard Richter and others were featured in the exhibition *Color Chart: Reinventing Color, 1950 to Today* held at the New York Museum of Modern Art in 2008. In her catalogue essay on Richter’s work Anne Temkin<sup>11</sup> explains how the colour charts “provided an answer

to a question that Richter already had in mind: not only how to dissociate color from its traditional descriptive, symbolic, or expressive ends, but also how to avoid the dogma that surrounded geometric abstraction.” The Colour Card Game also introduces chance processes as a means of escaping from dogma. The colour combinations that players produce reflect the interaction of chance and choice – chance as a way to take them into unfamiliar territory and choice as their means of taking advantage of what they find.

## CONCLUSION

The Colour Card Game has proved to be an effective teaching tool in the classroom and in more social situations. Players enjoy the game, they find it challenging and stimulating. Feedback from students has established that the game promotes innovative solutions to problems of colour design. The game is still evolving. There is no definitive set of rules, nor should there be. The rules can be set to suit the needs of the players. Rules provide a structure for exploring the interaction of colours and a way to record discoveries. The game is a product of the philosophy that students should be engaged, inspired and empowered. They should learn that they have the ability and techniques to explore colour possibilities and to make creative and appropriate choices. The authors believe in the value of activities that are interactive and fun but they also recognise that the ‘fun’ always relates to ‘serious’ understanding and application.

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