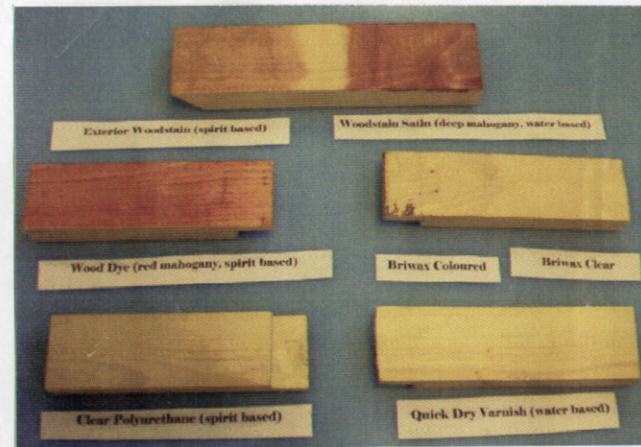


The point of testing and trialling is so that I can apply different processes to various materials and come to a conclusion about which kinds of woods would be best for me to use to suit my project.

Materials
The picture shows 5 pieces of wood which have had various finishes applied to them. By looking at these I can see what type of finish I would like my Bagatelle board to have and then use it. I may just varnish the wood I'll be using or either stain/varnish or primer and then paint. I think that a wood finish would look quite effective though.

Below is a table showing what happened to different types of wood when they were tested in various ways:



Product Development

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Materials/production	4/4
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Product specification	

By looking at this table, I think the best woods for me to use are birch plywood and MDF or a mixture of them both.

Material	Surface Appearance	Planing the Edge, Planing the End	Weight/Density	The Effect of Sanding	Nail in Center and Near End of Edge	Strength - Mallet Test
Softwood (natural wood)	Mostly smooth but with knots - frayed at the ends - could give splinters.	Along the grain(edge): thin strips of wood come off in curls, works well, smooth curls, easy. Across the grain(end): splits wood, nothing comes off, damages surface.	Lightweight and low density	Soft and hard: easy, quick and smooth finish Sander: creates lines going from top to bottom which are visible	Easy and quick. Near to edge: splits if you miss, the nail makes a dent in the wood. Near to middle: no splitting.	Strong
Hardwood Mahogany (natural wood)	Darker color - mahogany - grains or age lines. Most sides feel smooth.	Edge: works, and small curls are cut, smooth finish. Easy but takes a while. End: doesn't work, damages surface and splits.	Lightweight but high density	Soft and hard: very smooth, easy, good finish Sander: rough surface, not good finish	Hard to hammer in. Splits near edge. Dents slightly when hit.	Strong
Birch Plywood (Manufactured board)	See layers on the edges - different colours. Not as smooth as soft wood with only a few grain lines - not as many as Mahogany. Little pieces come off if run hand along it.	Edge: easy, works well, quick, smooth finish. Not complete curls. End: works (kind of) but splits at the ends, not as smooth.	Lighter than fibreboard. Dense (due to layers)	Soft and hard: good finish, very smooth, rounded. Sander: flat but not very smooth, splinter	Near to edge: splits (down the middle), easily dented. Near middle: does not split.	Strongest
Medium Density Fibreboard (manufactured board)	Smooth with specks of darker color. Light brown colour.	Edge: works well, smooth finish, tiny crumbling curls, easy and fast. Sometimes corners split. End: same as above - risk of splitting	High density makes fairly heavy.	Soft and hard: very smooth, rounded finish because shape of hand. Sander: not as smooth but better finish, flat	A layer came off. At the beginning it was difficult to force the nail in.	Weaker
Chipboard (Manufactured board)	Looks like tiny chips of wood have been squashed and held together in layers. Rough on edges - smoother on top and bottom - but still quite rough. Lots of different colours - grays, light and dark browns.	Edge: slow, doesn't work very well, hard, it crumble. End: same as above except splits at corners.	Quite heavy in comparison to others, but light for size. High density.	Soft and hard: smooth but dull finish, takes a long time Sander: good, clear finish, rough and splinter though.	Near to edge: fairly easy, slight splitting Near to middle: does not split, hard to dent.	Weakest