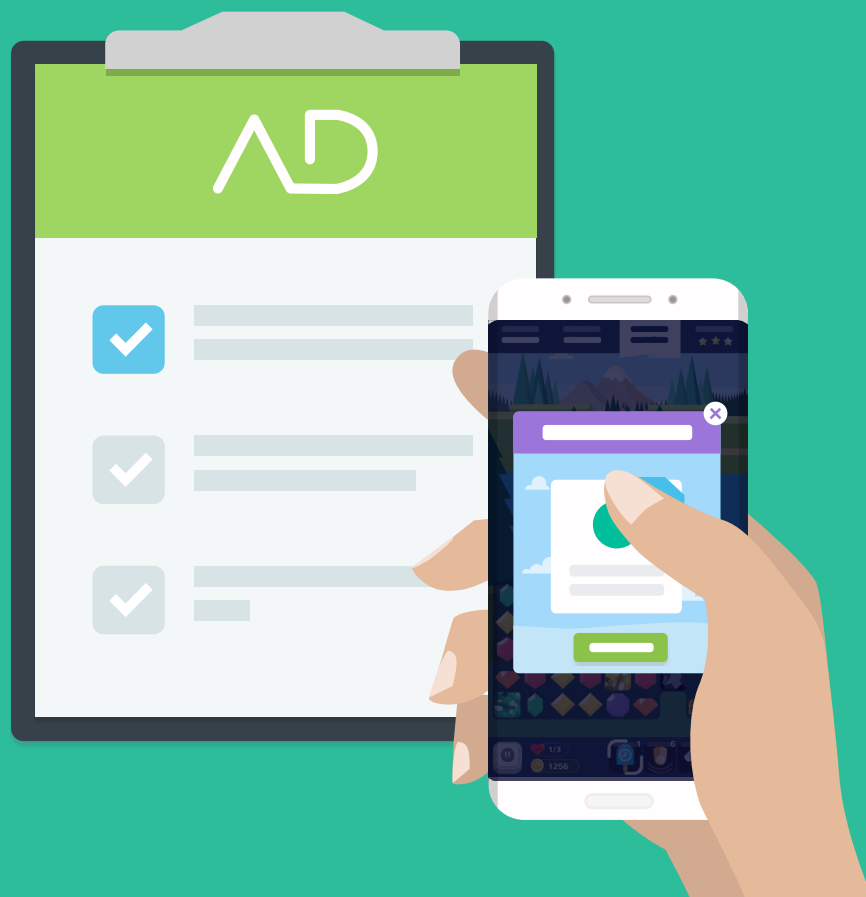


# Ad survey results

An in-depth study of in-game advertising



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# The study

From talking to game developers around the world, it's become clear that there is a lack of commonality to the approaches taken and no real migration towards an established form of best-practice.

In 2015 we ran our first version of this survey to establish the patterns in the approaches taken by Developers of free to play (F2P) games, and were surprised at the widespread lack of confidence displayed.

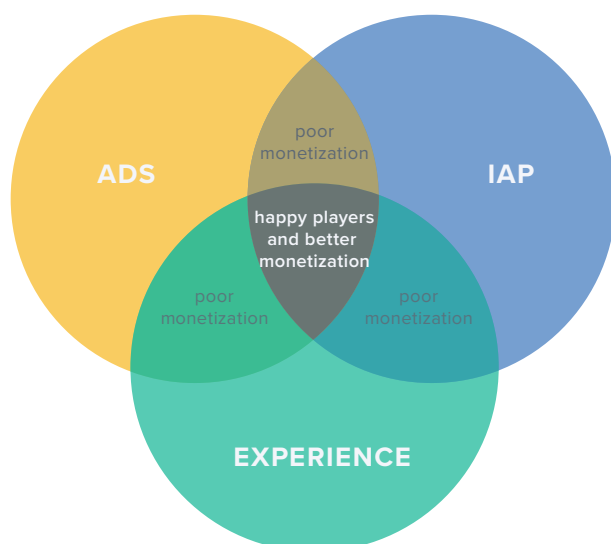
This year we have repeated the survey, keeping a core of the questions the same so we can identify trends, updating some questions to reflect changes, such as the coming of playable ads, and adding some new questions to explore further some of the surprising results thrown-up last year.

## About deltaDNA

We love games and data, lots of it! Highly granular and transparent analytics are at the heart of deltaDNA's big data game analytics and real-time marketing platform.

DeltaDNA gives Developers the tools to optimize games by analyzing player behaviors in detail, using the insight to micro-target players and deliver personalized game experiences in real-time.

SmartAds was launched in 2015, and it provides developers with the capability to analyze the effect of their advertising on player behavior, to provide a player-led experience. SmartAds also provides independent dynamic mediation covering 30+ ad networks.

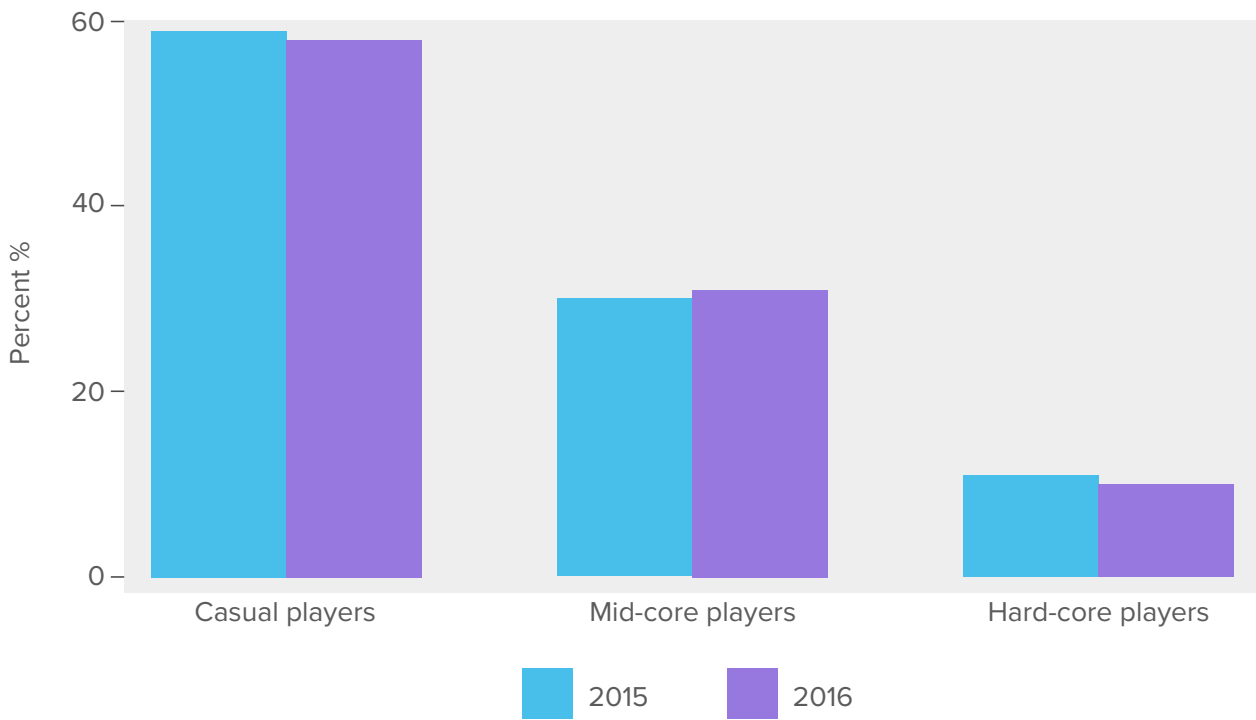


*“Think of your game as a marketplace:  
focus on integrating monetization strategies  
as a joined up component of game-play”*

Mark Robinson, CEO, deltaDNA

# Results

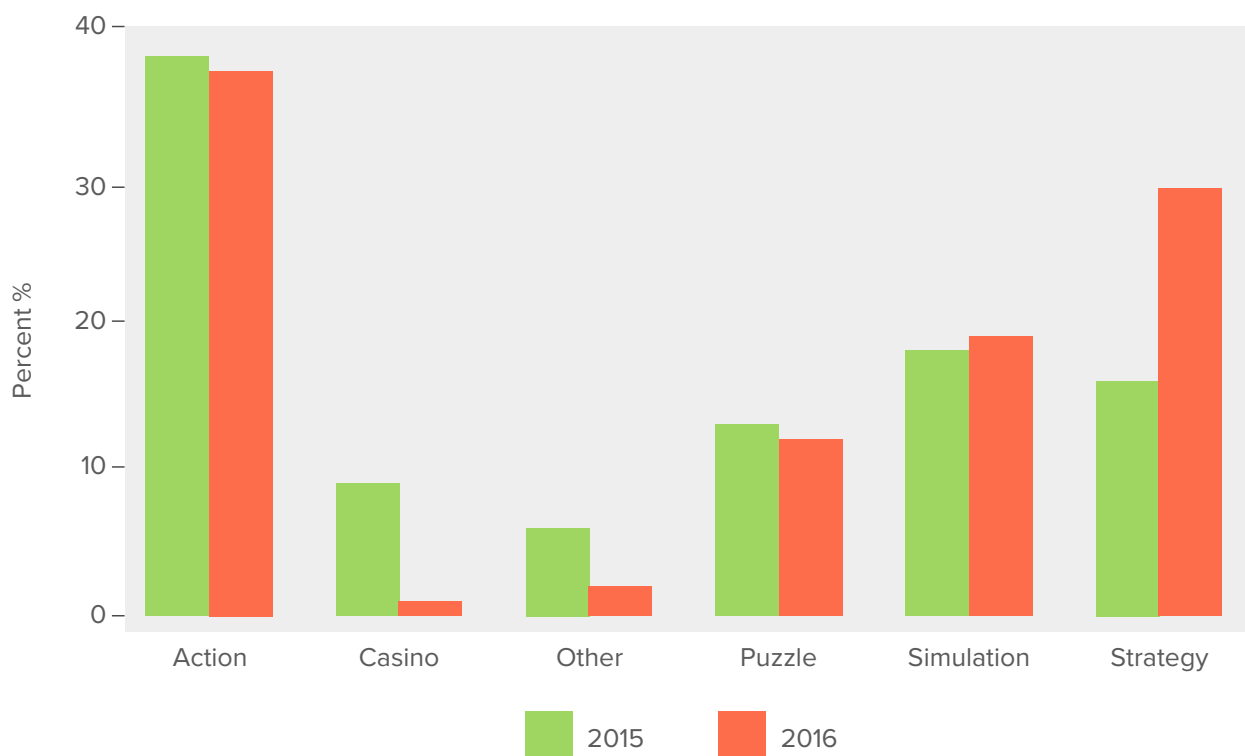
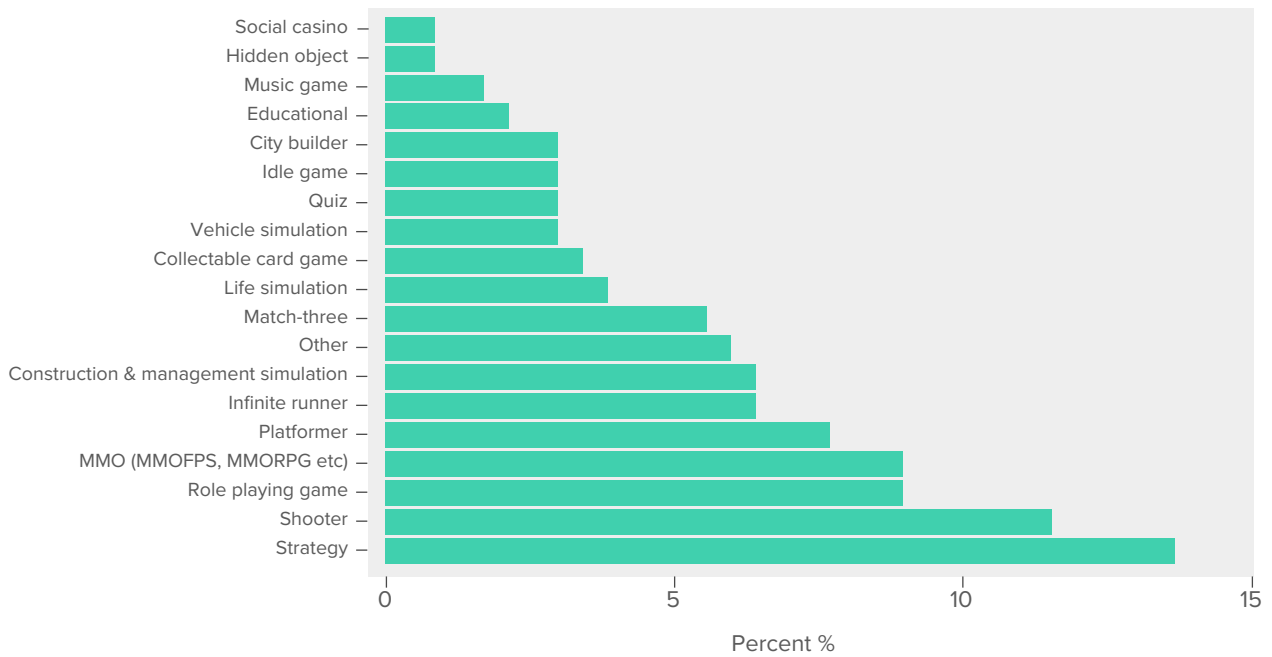
**Q1: What audience does your highest monetizing F2P mobile game mainly reach out to?**



<b>TYPE OF PLAYER</b>	<b>2015</b>	<b>2016</b>
Casual players	59%	58%
Mid-core players	30%	31%
Hard-core players	11%	10%



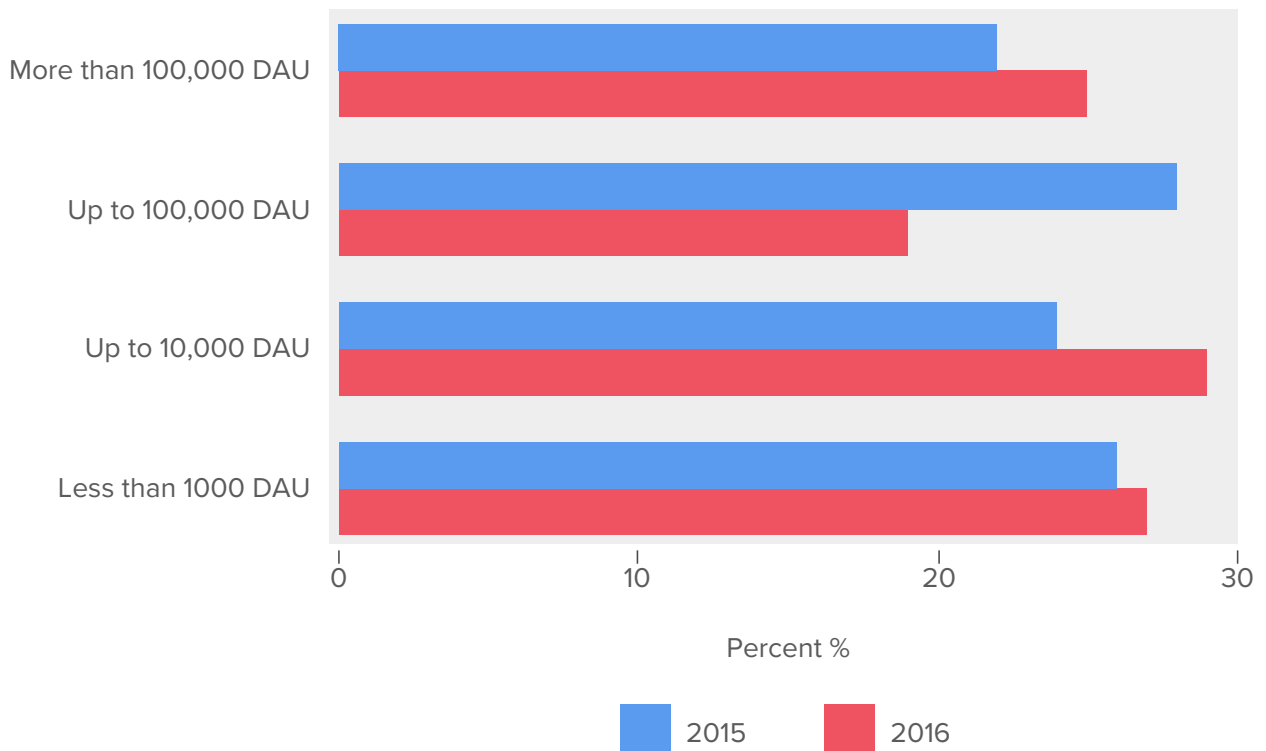
## Q2: Which one of the genres listed below closely describes your highest monetizing F2P mobile game?



GENRE	2015	2016
Action	38%	37%
Casino	9%	1%
Other	6%	2%
Puzzle	13%	12%
Simulation	18%	19%
Strategy	16%	29%



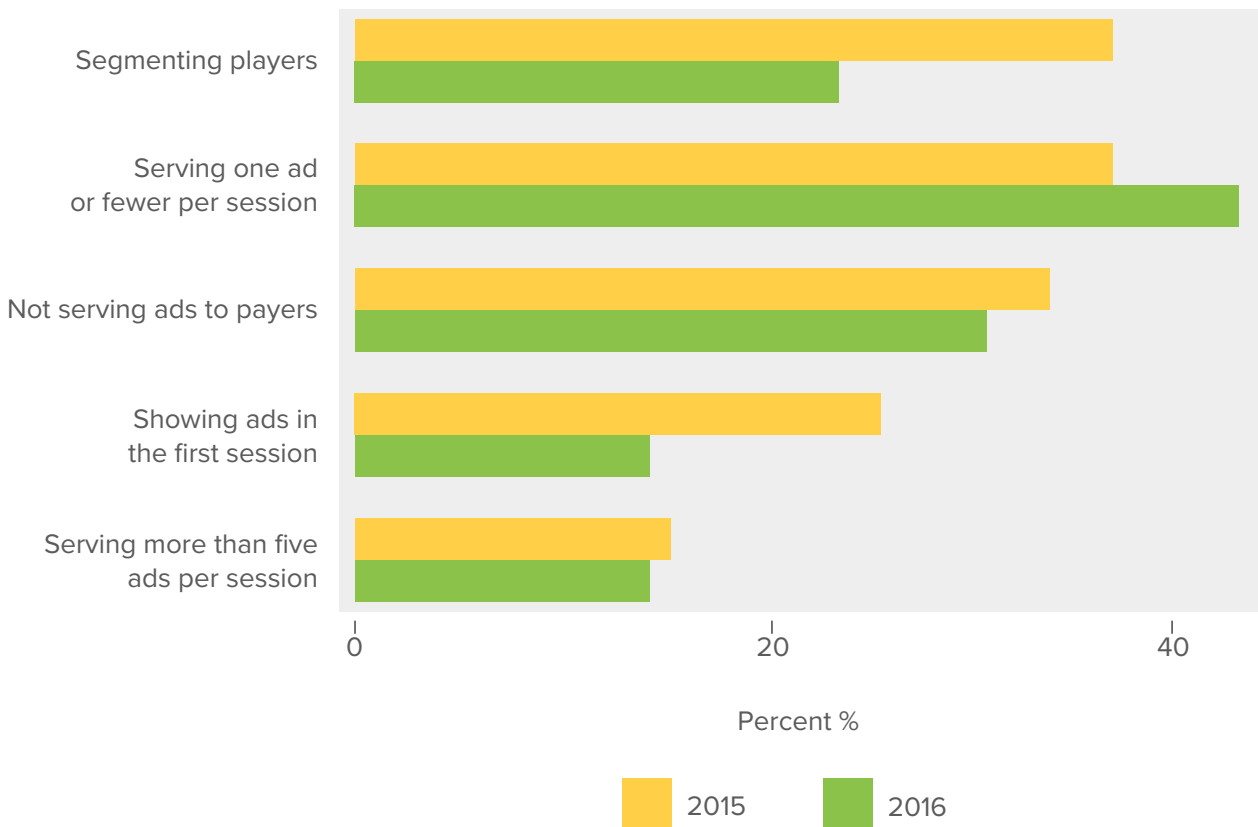
### Q3: Which option best describes the peak traffic volume in DAU for the F2P mobile game?



TRAFFIC VOLUME	2015	2016
More than 100,000 DAU	22%	25%
Up to 100,000 DAU	28%	19%
Up to 10,000 DAU	24%	29%
Less than 1000 DAU	26%	27%



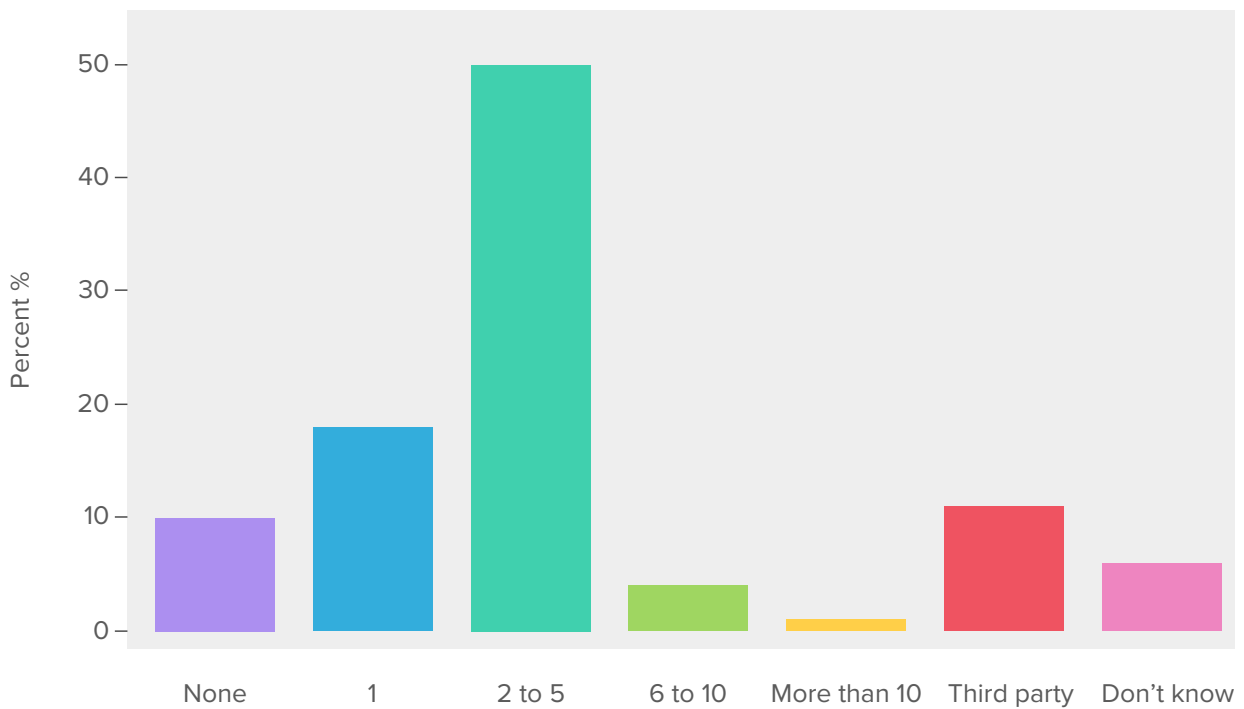
### Q4: Which of the following statements could be used to describe how you do F2P in-game ad serving?



AD SERVING APPROACH	2015	2016
Different types of non-paying players receive different ad strategies	36%	23%
Most players only see one ad or fewer per session	36%	42%
We don't serve ads to our paying players	33%	30%
We serve ads to most players in the first session	25%	14%
Most players see 5 or more ads per session	15%	14%



## Q5: How many ad networks do you implement in your game?

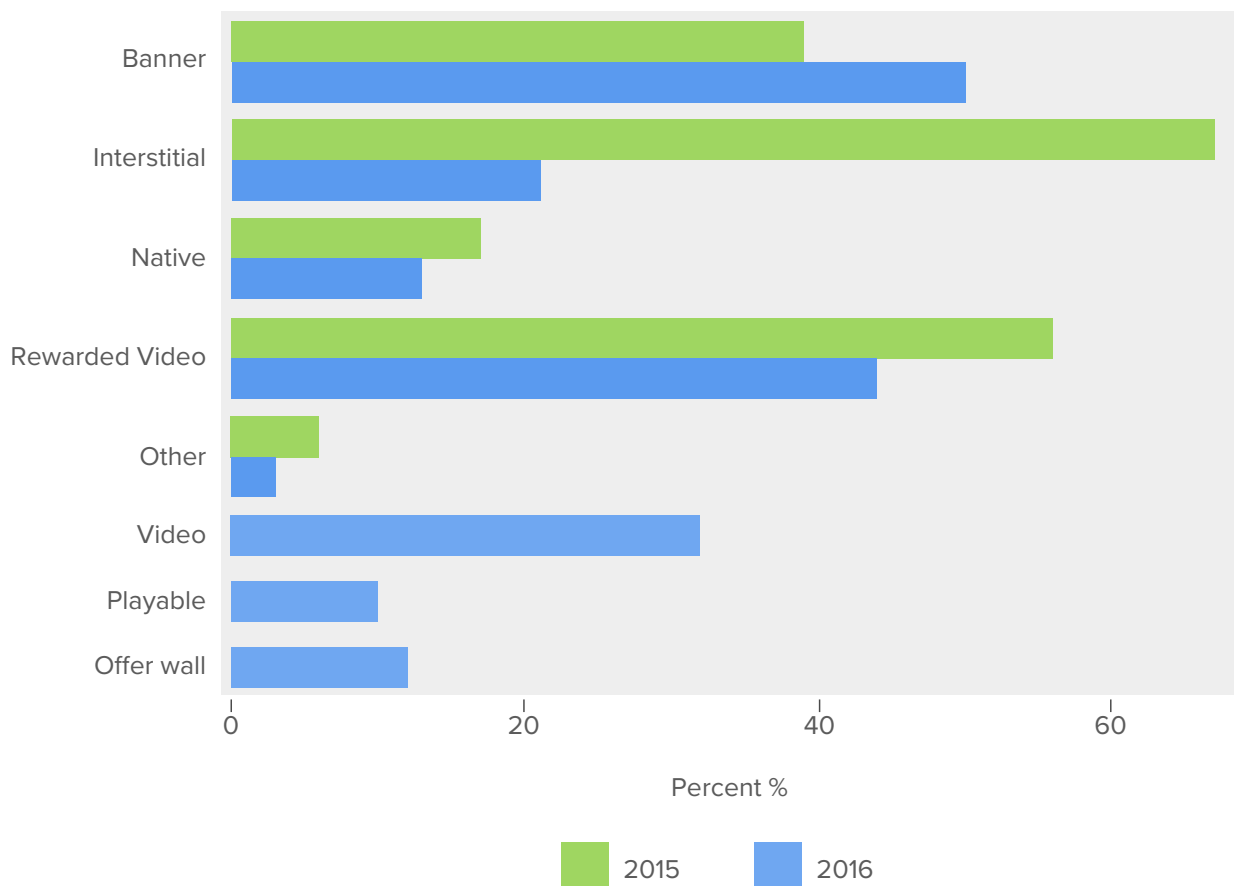




NUMBER OF AD NETWORKS	PERCENTAGE
None	10%
1	18%
2 to 5	50%
6 to 10	4%
More than 10	1%
I use a third party mediation tool covering multiple ad networks	11%
Don't know	6%



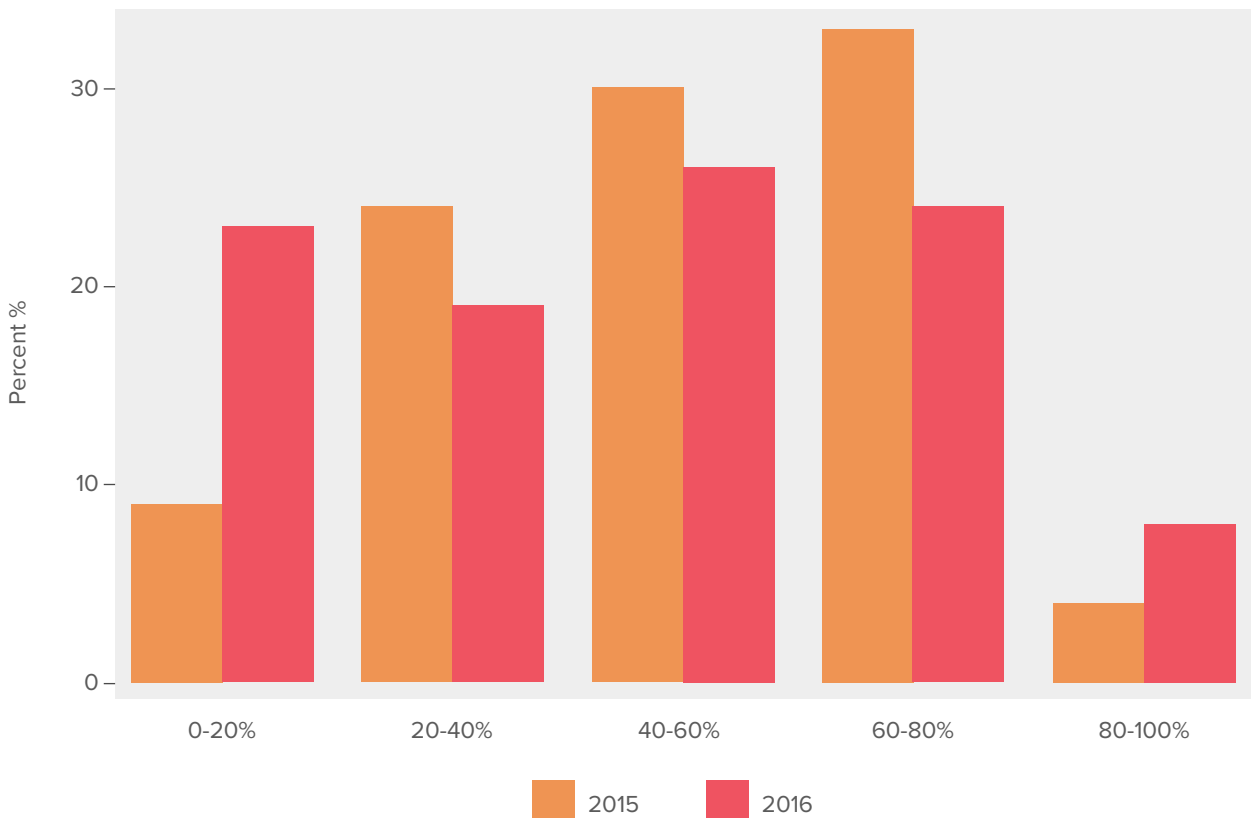
## Q6: What types of ads do you display in your game?



TYPES OF ADS	2015	2016
Banner	39%	50%
Interstitial	67%	21%
Native	17%	13%
Rewarded Video	56%	44%
Other	6%	3%
Video		32%
Playable		10%
Offer wall		12%



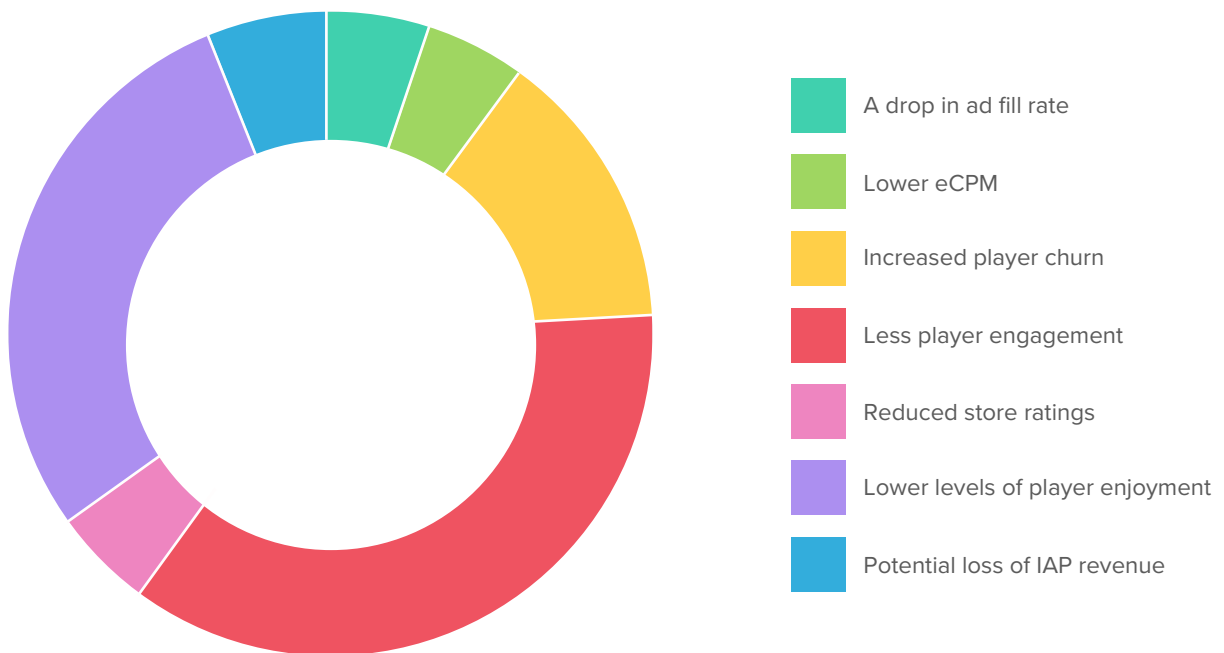
## Q7: How certain are you that you are taking the optimum approach towards in-game advertising in your highest monetizing F2P mobile game?



CERTAINTY OF OPTIMUM APPROACH	2015	2016
0-20%	9%	23%
20-40%	24%	19%
40-60%	30%	26%
60-80%	33%	24%
80-100%	4%	8%
<b>Average</b>	<b>54%</b>	<b>48%</b>



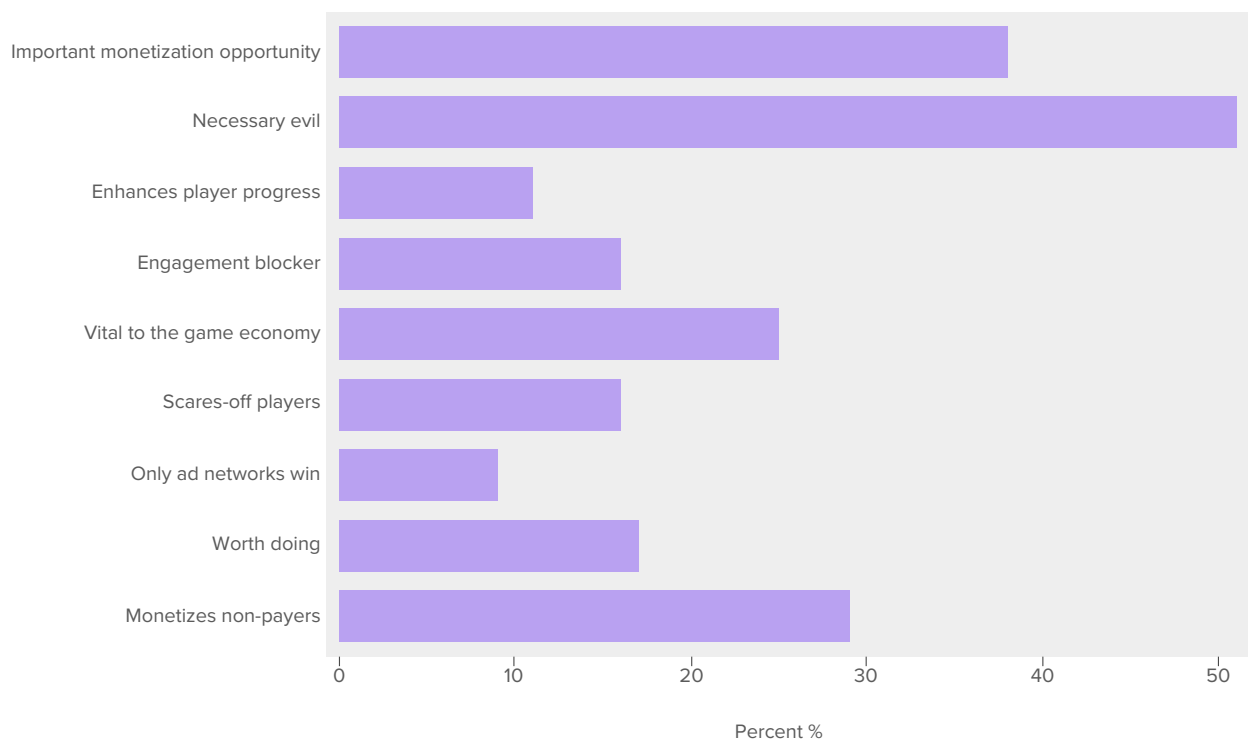
### Q8: Which of the following factors concerns you most when setting the frequency of ads in a game?



FREQUENCY OF ADS CONCERNS	PERCENTAGE
A drop in ad fill rate	5%
Lower eCPM	5%
Increased player churn	14%
Less player engagement	36%
Reduced store ratings	5%
Lower levels of player enjoyment	29%
Potential loss of IAP revenue	6%



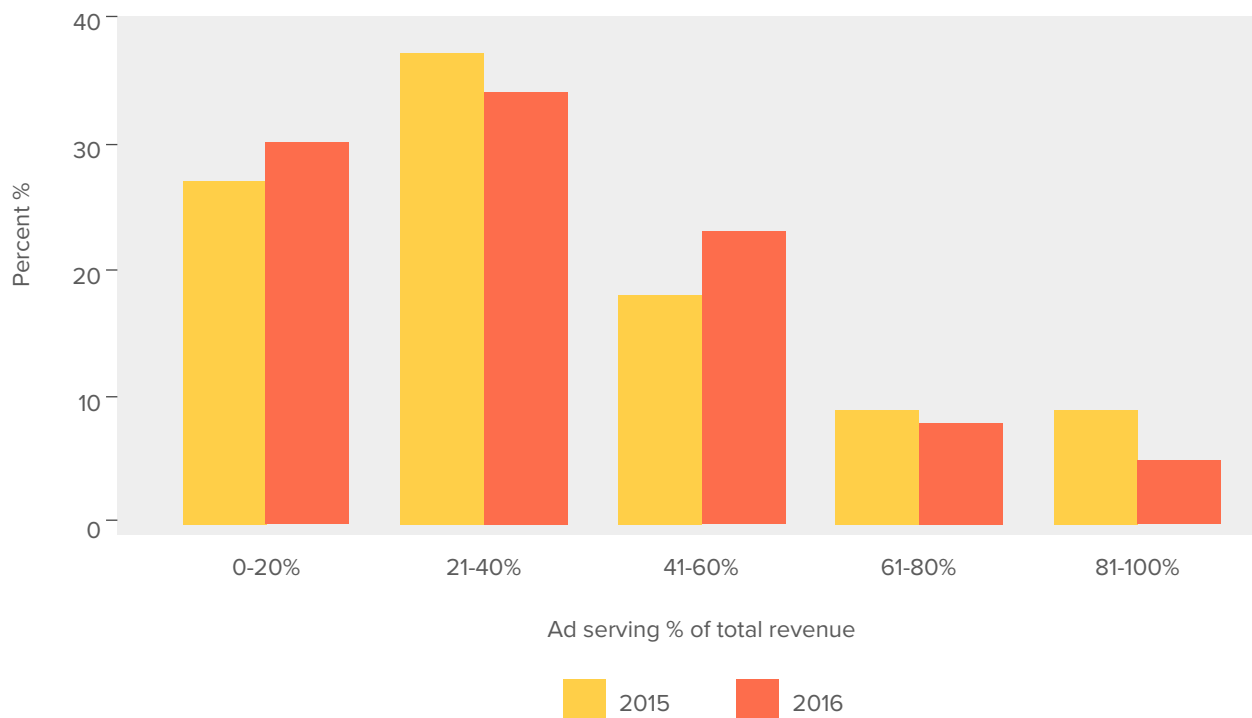
## Q9: Which of these sentiments describe your attitude to in-game advertising?



ATTITUDE TO IN-GAME ADVERTISING	PERCENTAGE
Important monetization opportunity	38%
Necessary evil	51%
Enhances player progress	11%
Engagement blocker	16%
Vital to the game economy	25%
Scares-off players	16%
Only ad networks win	9%
Worth doing	17%
Monetizes non-payers	29%

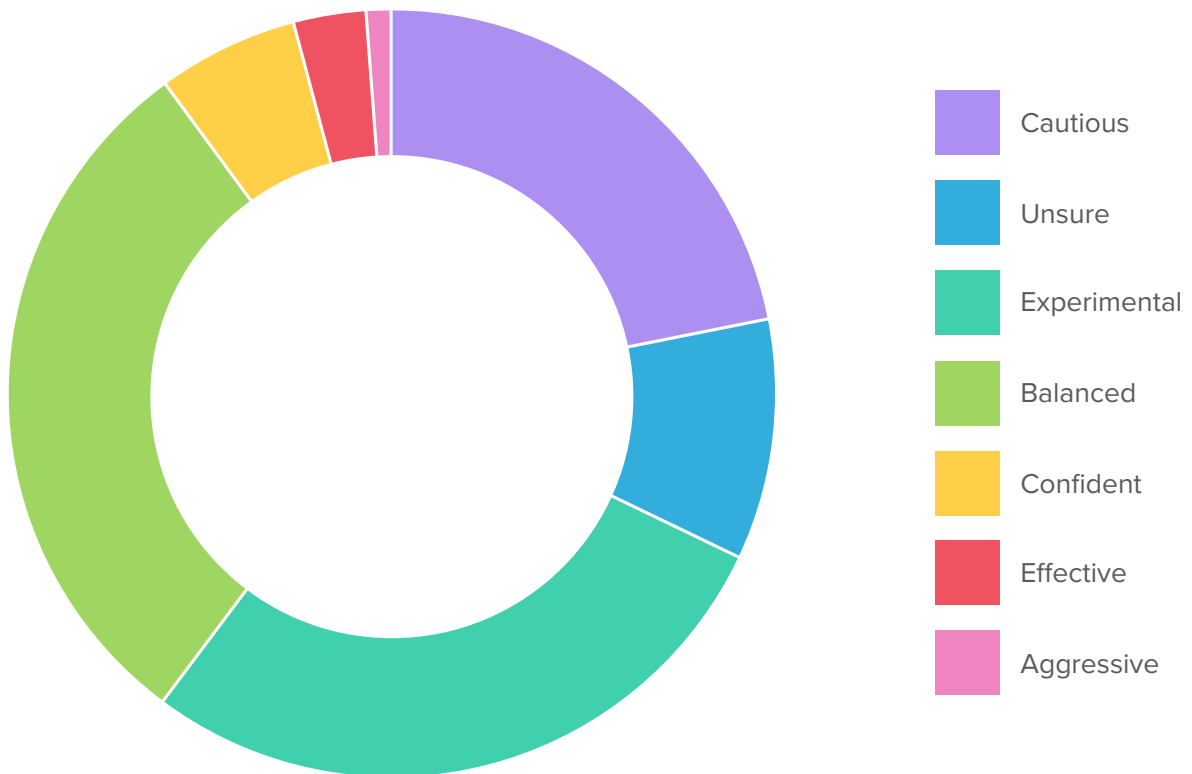


## Q10: What's your estimate of the approximate revenue split between ads and IAP in your highest monetizing F2P mobile game?



REVENUE	2015	2016
Ad serving is 0-20% of total revenue	27%	30%
Ad serving is 21-40% of total revenue	37%	34%
Ad serving is 41-60% of total revenue	18%	23%
Ad serving is 61-80% of total revenue	9%	8%
Ad serving is 81-100% of total revenue	9%	5%
Average	38%	35%

### Q11: Which word best describes your overall approach to in-game advertising?



APPROACH	PERCENTAGE
Cautious	22%
Unsure	10%
Experimental	28%
Balanced	30%
Confident	6%
Effective	3%
Aggressive	1%



## Results analysis

### SAMPLE

The breakdown of respondents was very similar in 2016 to the participants we had in 2015, when looking at the types of players their games targeted. In terms of game genre, the sample was again very similar, except for an increase of 13% in Strategy games, along with a decrease of 8% in Casino games. We've seen a small degree of polarization in the numbers of players our top performing F2P games receive with a drop of 9% in the 10k to 100k DAU bracket.

With everything considered, the sample of respondents in 2016 is very similar constructed to that of 2015, to the extent that direct comparisons between the two years' data can be soundly made.

### APPROACHES TO ADVERTISING

The headlines in 2015 were that certainty that participants were taking the optimum approach was only 54%, and the share of revenue from advertising was 38%. In 2016, both values have fallen. Only 48% of participants think they are doing the right thing, and IAP vs Ad revenue share has dropped to 35%.

With these figures in mind, it should come as little surprise that when we asked in Question 4 for participants to describe the approach they take with in-game advertising, the only option to show an increase was the most passive approach of serving one ad or fewer per session, which increased from 36% to 42%. One surprise however is the reduction in respondents choosing to provide different ad strategies to different types on non-paying players. This has dropped from 36% to 23%. Presumably this is either because it's considered to be difficult or not cost-effective to achieve.

## AD FREQUENCY

Anecdotally, we hear that concerns about ad frequency focus on worries about players being put off, and consequently not returning. We set a question to explore this further, as our experience has been that you can always set more ads than you think you can, and most developers are leaving money on the table by selecting to implement an ad density which is too low.

We asked respondents in Question 8 to name the one factor that most concerned them when setting ad frequency, and surprisingly, player churn only receive 14% of the vote, and this was supported by the sentiments relating to in-game advertising, where only 16% thought it scares off players. Concerns around player engagement (36%) and player enjoyment (29%) were of much greater concern.



Concerns around player enjoyment and engagement sound at first hearing as though they are antecedents to player churn, and so therefore a measure of the same thing.

Following analysis of deltaDNA game data by Zachary Burn and Nicholas Ross, University of San Francisco, along with Isaac Roseboom of deltaDNA, it was discovered that there was no evidence of first session ad density affecting retention. However, the game itself was a significant predictor of retention.

Nick Ross, Assistant Professor, University of San Francisco stated, “We evaluated deltaDNA game data which associates ad engagement to the individual player, and enables its comparison with players’ in-game behavior. This allowed us to determine that there is no evidence to suggest that the density of ads shown by a game in the first session affects whether a player returns for a second session.”

This research contextualizes these responses. The concern from developers is less likely to be about the number of ads per se, but more focused on their ability to integrate them into the total game experience.

The deltaDNA Insight Team took a look at our platform data to determine the effectiveness of advertising on a game’s ability to monetize. As can be seen below, if ads aren’t properly measured and applied, as you would with any other game mechanic, they run the risk of cannibalizing IAP expenditure and conversion.

PLATFORM	KPI	NO ADS	INTERSTITIALS	REWARDED
	D1	31%	44%	39%
	D7	9%	16%	14%
	D30	3%	5%	5%
	ARPPDAU	\$0.08	\$0.03	\$0.05
	DAILY %CVR	0.9%	0.5%	0.7%
	D1	33%	40%	39%
	D7	11%	15%	16%
	D30	4%	6%	8%
	ARPPDAU	\$0.18	\$0.04	\$0.09
	DAILY %CVR	1.2%	0.5%	0.8%



## AD TYPES

With acknowledgement of the importance of in-game advertising to enhance the player experience, it is no surprise that in Question 6 we see the use of distracting interstitials falling through the floor, down from being displayed in 67% of games, to only 21%, with all other types pretty much holding their own, albeit easily ignored banner ads, have grown from 39% to 50% use.

## THE CHALLENGE FOR 2017

When looking at the sentiments describing participant's attitude towards in-game advertising, while 51% see it as a necessary evil; what stands out is that only 11% of participants see ads as a way of enhancing progress within the game, while the purely economic value of ads take up 2nd, 3rd and fourth spot after them being a necessary evil; with important monetizing opportunity (38%), monetizes non-payers (29%) and vital to the game economy (25%). Only 17% of respondents see in-game advertising as "worth doing" and for that to change; and for that to change advertising has to be integrated as a vital part of the experience.

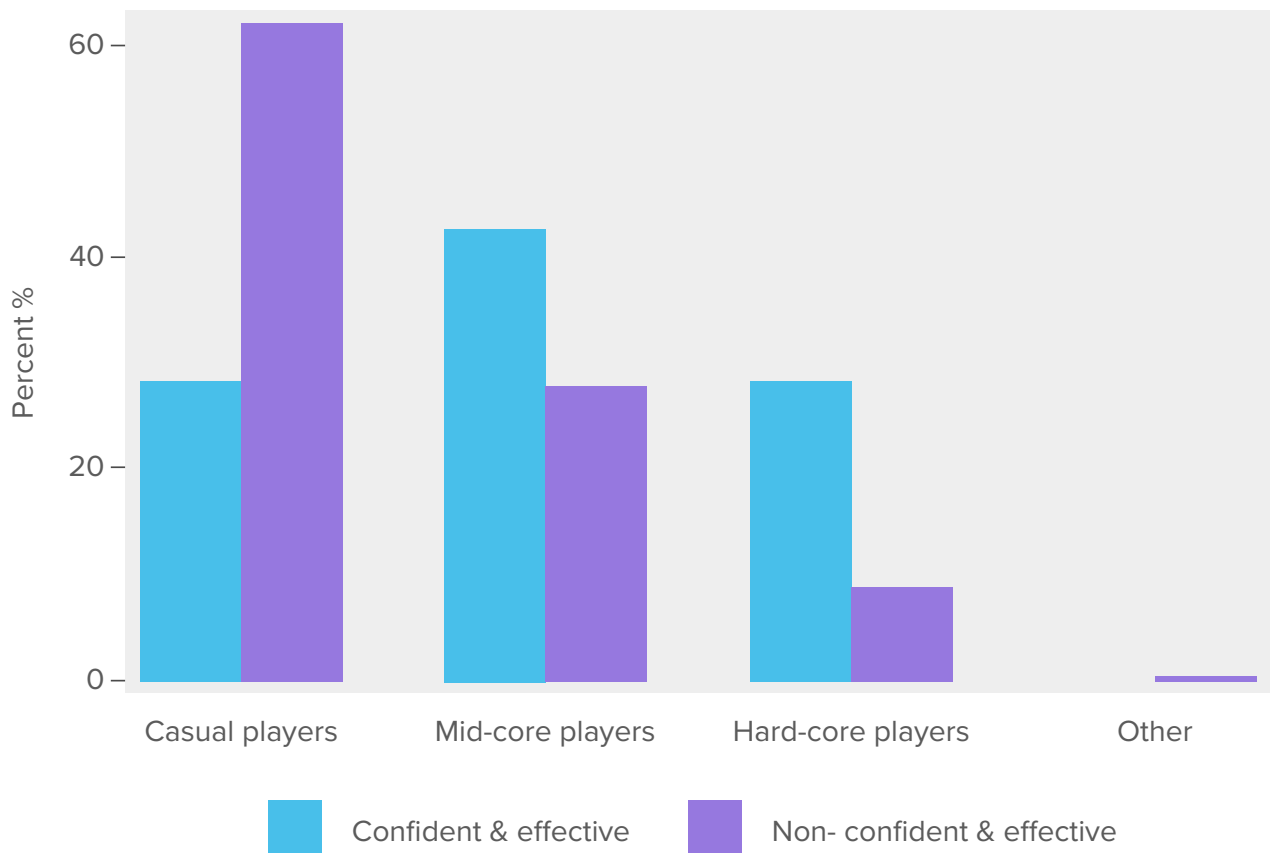
One last revelation from the University of San Francisco Research; and that is while the density of ads doesn't affect churn, the specific in-game experience is a significant predictor of churn.

## A more positive view

Whilst the data coming in represented a sea of uncertainty, there was a small pocket of positivity. In Question 11, we asked for a single word to describe the approach taken to in-game advertising. Although only contributing 9% of respondents when added together, those who described their overall approach to advertising as being either confident or effective showed results that were marked in their similarity to each other, and in many respects, their difference from those less positive.

So, do these people just have a more positive mental attitude, or are they doing something different from anyone else? These comparison charts will check it out.

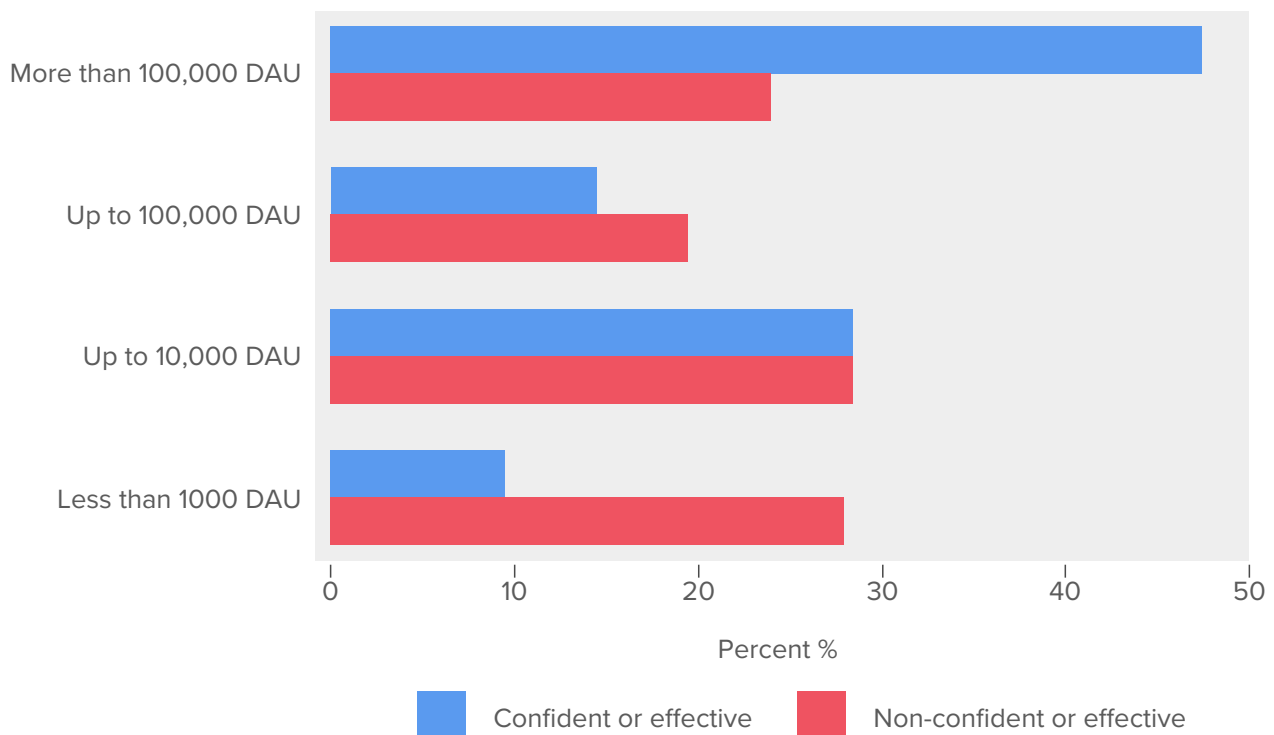
# Q1: What audience does your highest monetizing F2P mobile game mainly reach out to?



TYPE OF PLAYER	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
Casual players	28.5%	62.5%
Mid-core players	43%	28%
Hard-core players	28.5%	9%
Other	0%	0.5%



### Q3: Which option best describes the peak traffic volume in DAU for the F2P mobile game?



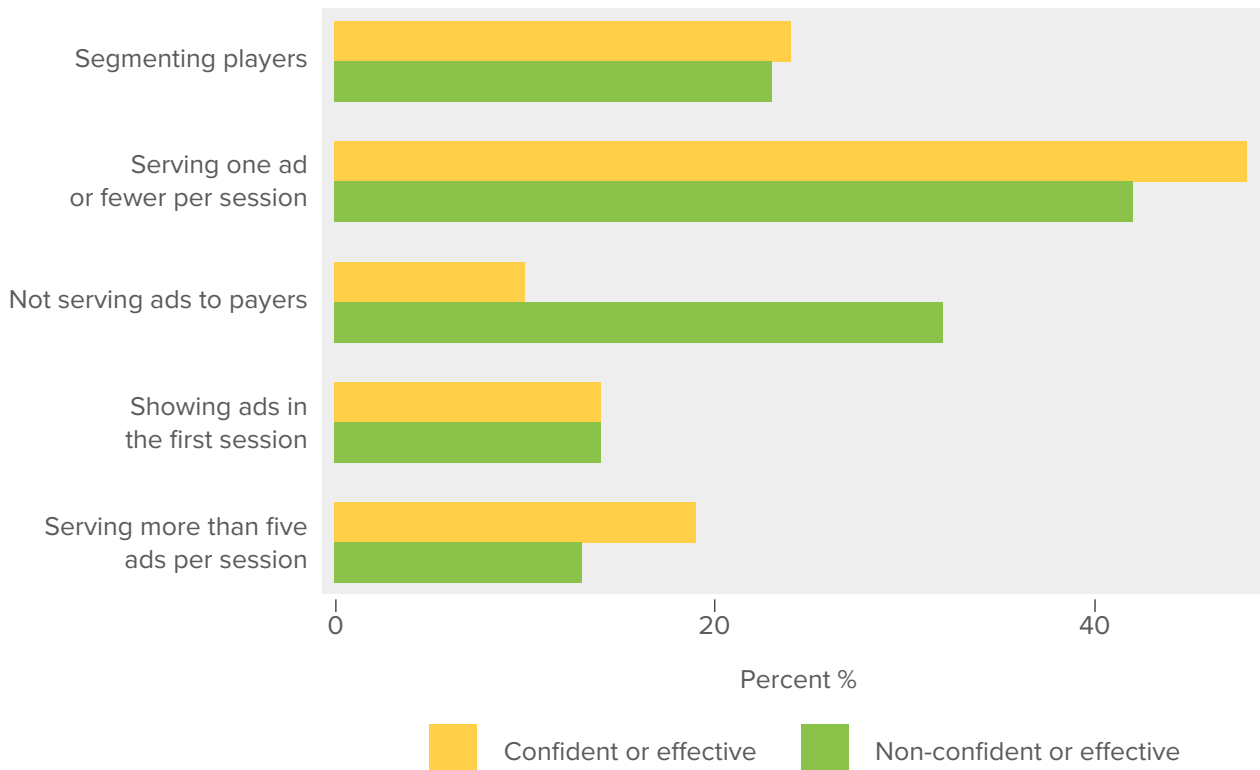
TRAFFIC VOLUME	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
More than 100,000 DAU	47.5%	24%
Up to 100,000 DAU	14.5%	19.5%
Up to 10,000 DAU	28.5%	28.5%
Less than 100 DAU	9.5%	28%



Games where the respondents were more confident or effective generally have more players and are less targeted towards casual players.

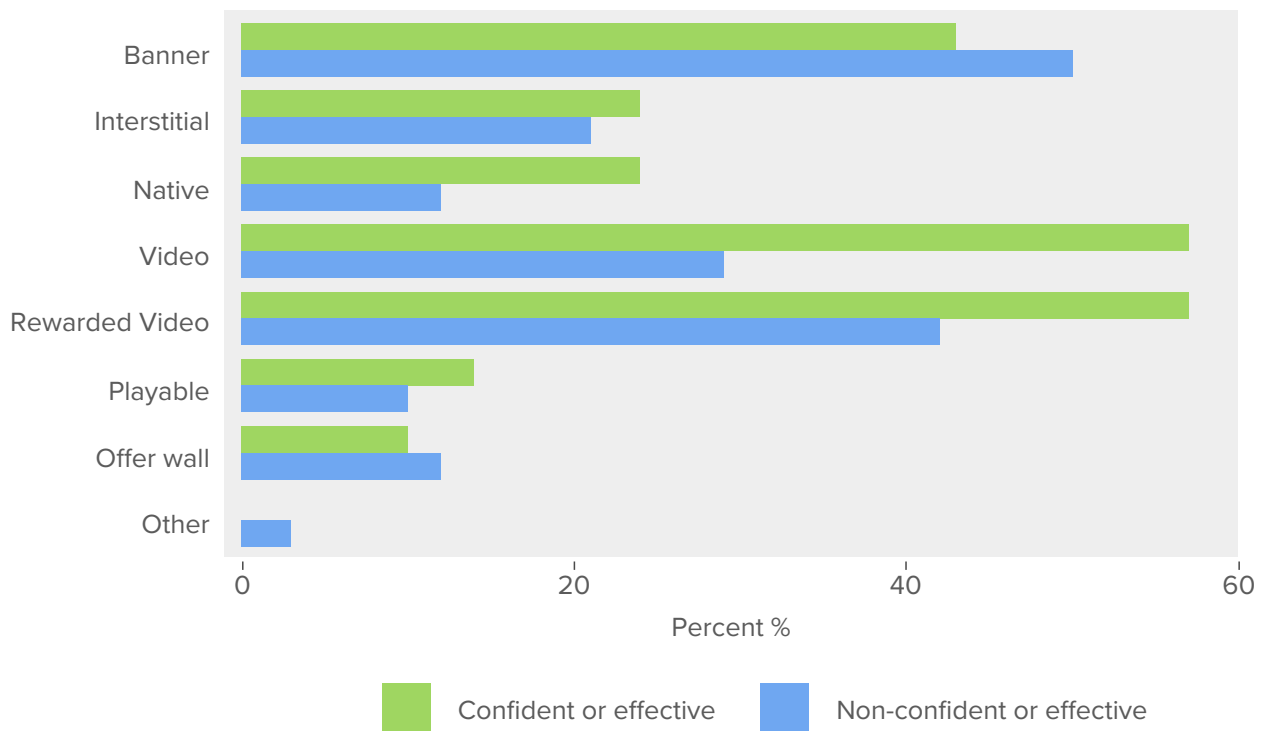
Their approach is generally similar, albeit they appear to be more apt towards preserving IAP by being three times more likely to avoid serving ads to payers, but they are as likely to take a more aggressive approach, as they are to take a more passive approach.

## Q4: Which of the following statements could be used to describe how you do F2P in-game ad serving?



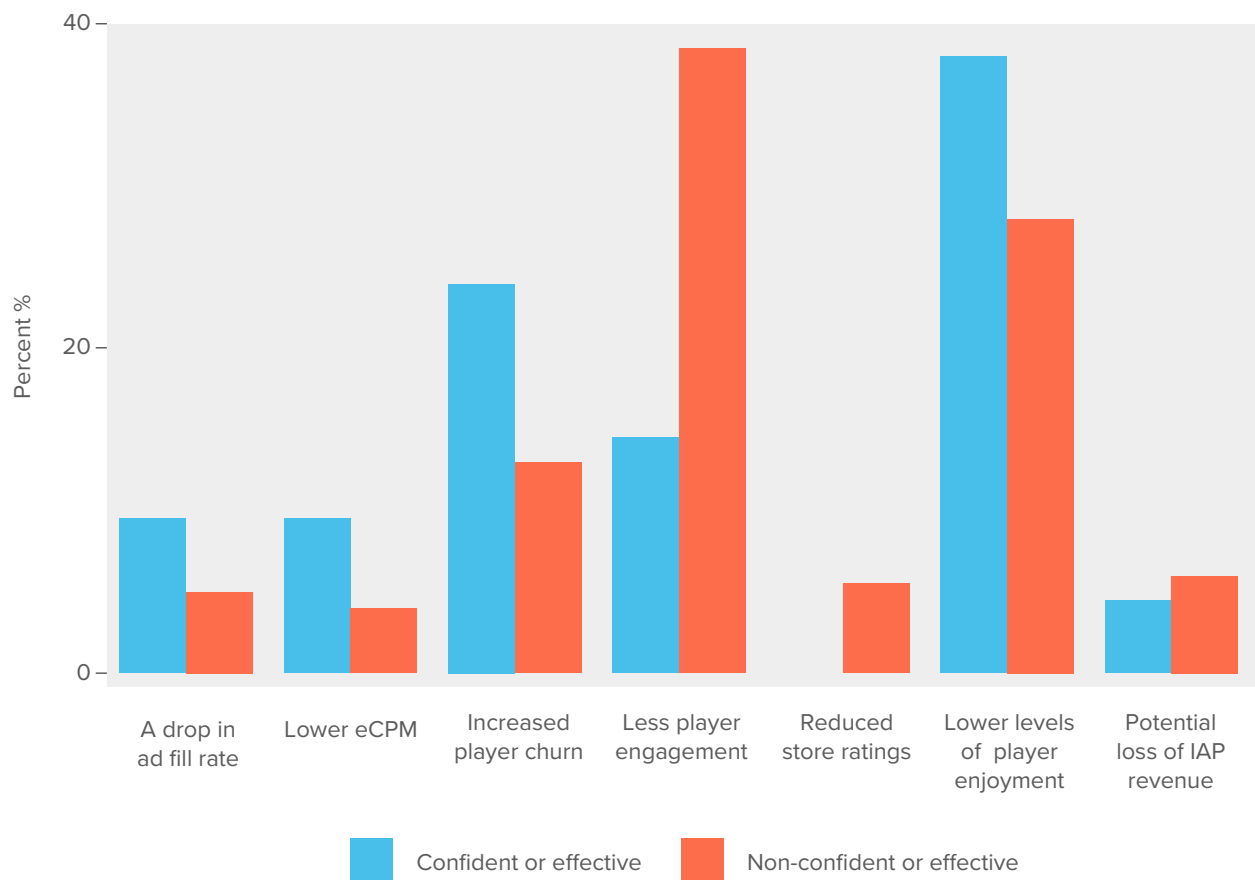
AD SERVING APPROACH	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
Different types of non-paying players receive different ad strategies	24%	23%
Most players only see one ad or fewer per session	48%	42%
We don't serve ads to our paying players	10%	32%
We serve ads to most players in the first session	14%	14%
Most players see 5 or more ads per session	19%	13%

## Q6: What types of ads do you display in your game?



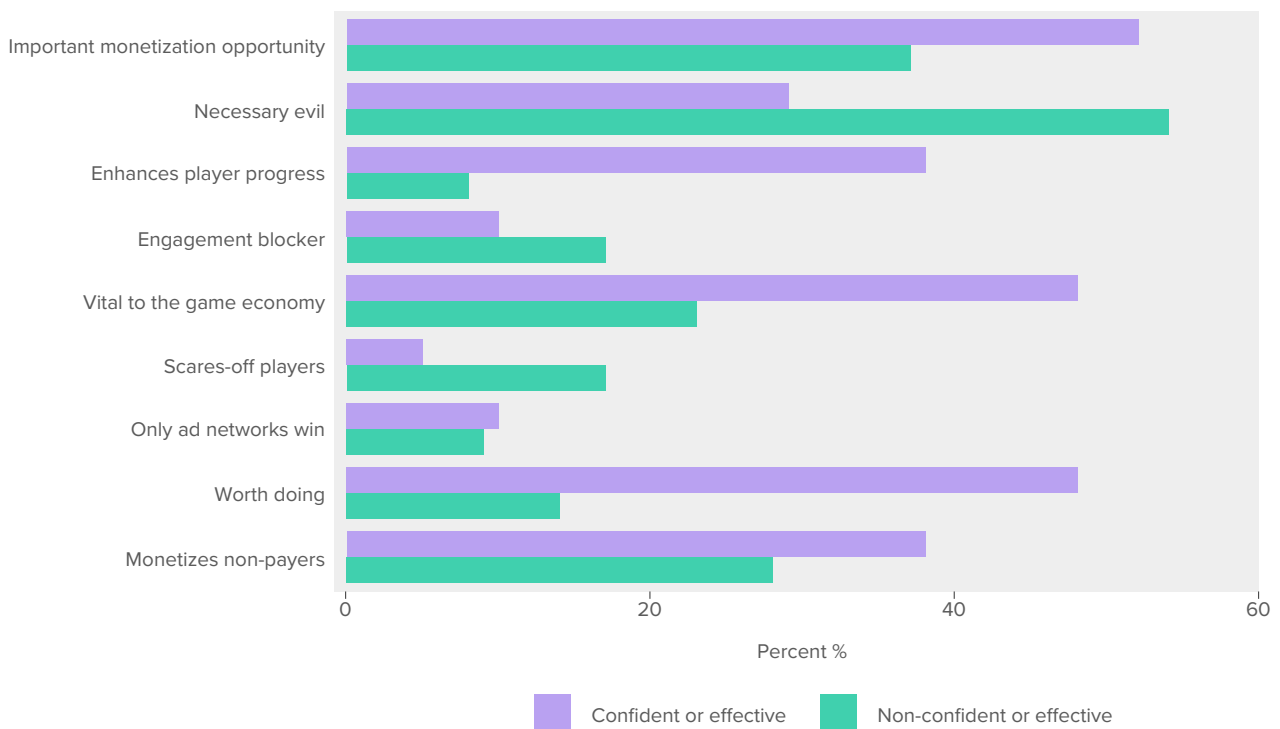
TYPE OF ADS	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
Banner	43%	50%
Interstitial	24%	21%
Native	24%	12%
Video	57%	29%
Rewarded video	57%	42%
Playable	14%	10%
Offer wall	10%	12%
Other	0%	3%

## Q8: Which of the following factors concerns you most when setting the frequency of ads in a game?



FREQUENCY OF ADS CONCERNS	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
A drop in ad fill rate	9.5%	5%
Lower eCPM	9.5%	4%
Increased player churn	24%	13%
Less player engagement	14.5%	38.5%
Reduced store ratings	0%	5.5%
Lower levels of player enjoyment	38%	28%
Potential loss of IAP revenue	4.5%	6%

## Q9: Which of these sentiments describe your attitude to in-game advertising?

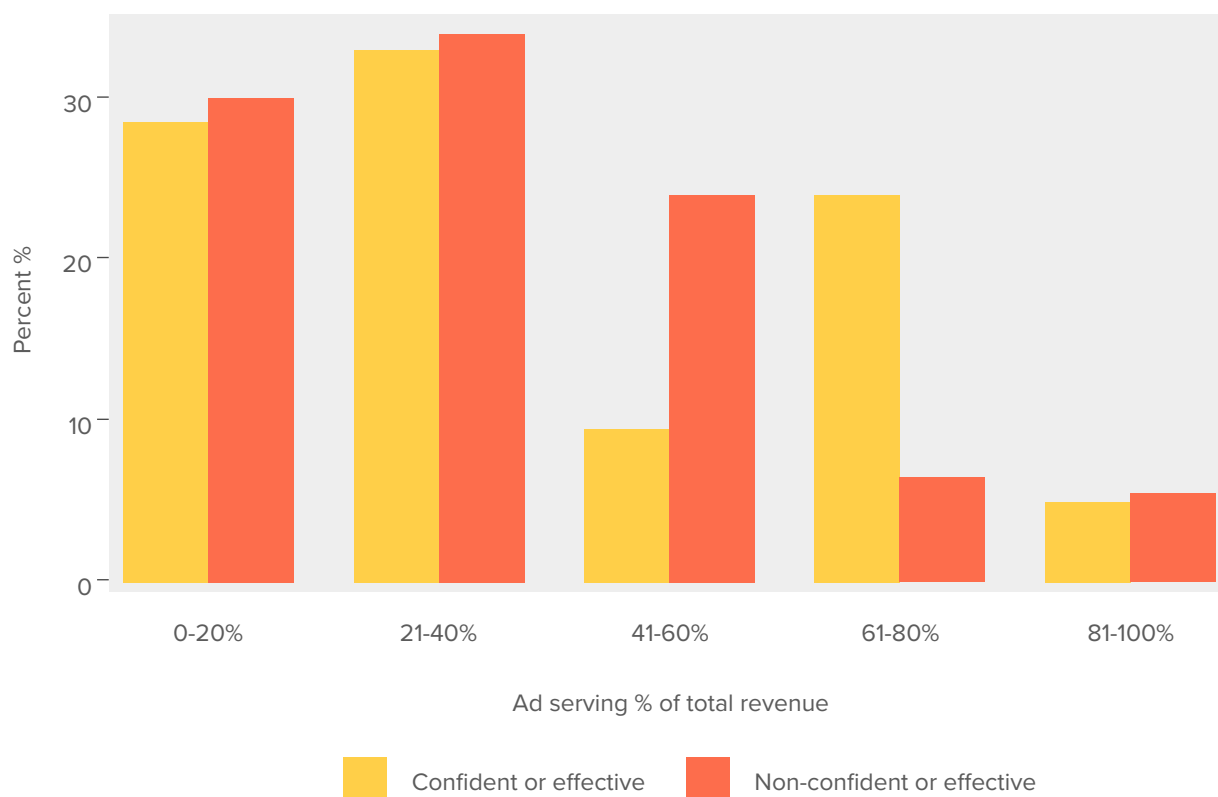


ATTITUDE TO IN-GAME ADVERTISING	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
Important monetization opportunity	52%	37%
Necessary evil	29%	54%
Enhances player progress	38%	8%
Engagement blocker	10%	17%
Vital to the game economy	48%	23%
Scares-off players	5%	17%
Only ad networks win	10%	9%
Worth doing	48%	14%
Monetizes non-payers	38%	28%



As you would expect, the confident or effective respondents have a much more positive attitude towards in-game advertising. They are less likely to see it as a necessary evil, and see the benefits. Perhaps, most strikingly they are almost five times as likely to see advertising as an enhancement to player progress.

## Q10: What's your estimate of the approximate revenue split between ads and IAP in your highest monetizing F2P mobile game?



REVENUE	CONFIDENT OR EFFECTIVE	NON-CONFIDENT OR EFFECTIVE
Ad serving is 0-20% of total revenue	28.5%	30%
Ad serving is 21-40% of total revenue	33%	34%
Ad serving is 41-60% of total revenue	9.5%	24%
Ad serving is 61-80% of total revenue	24%	6.5%
Ad serving is 81-100% of total revenue	5%	5.5%



Confident or effective Developers were on average 50% more certain that they are taking an optimum approach, compared to everyone else, and on balance are receiving about 10% more revenue from advertising, compared to IAP than other respondents.

In the above chart however, the spread of results are quite polarized, with a high proportion of games with a low proportion of revenue coming from ads, but with a big spike in the 60-80% category. So, it's not unified approach being taken by this group, but at the heart of their positivity is the importance of the player experience. They feel confident or effective because they are satisfied they have addressed this.



# Conclusions

We're another year on and it's still the case that most developers aren't sure about their approach. What they are sure about is that ad serving needs to enhance the player experience; engagement and enjoyment, but currently, only SmartAds from deltaDNA provides a means of integrating ad engagement data with behavioural game engagement data.

In-game advertising has previously been a bolted-on addition to the game, but where this approach exists, the effect on payer conversion rate and IAP expenditure can be catastrophic. The simple approach of not serving too many ads to avoid retention issues has been proven to be a false assertion.

It's been proven that the game experience affects retention, not ad frequency. So, the approach of reigning back frequency to maintain retention is a fallacy. With the fickleness of player retention resulting in around 40% of players not returning after the first session, we need to be clear that one poorly integrated ad experience can be as bad for a game as a poor on-boarding or sign-posting; whereas a frequency of well-integrated rewarded ads can enhance the experience by supporting progress.

The natural progression is that advertising should be treated not as a bolt-on, but as a game mechanic. It should be tested and optimised just like every other game mechanic. Its positioning on the screen, the value of the reward, its design and availability within the game.

Personalization of the player experience remains the goal. IAPs need to take precedence so knowing when to make an offer and when to provide a rewarded ad is key to avoiding cannibalization of IAP. With more than 70% of players not engaging with rewarded ads, the set-up of rewarded ads is the first place to look, but those players who aren't responsive to rewarded ads or IAP; and aren't socially engaged in user acquisition should probably receive interstitial ads to ensure all players are contributing to the economy.

# Credits

The Sensitivity of Retention to In-game Advertisements

Zachary Burn and Nicholas Ross, University of San Francisco, along with Isaac Roseboom, deltaDNA